

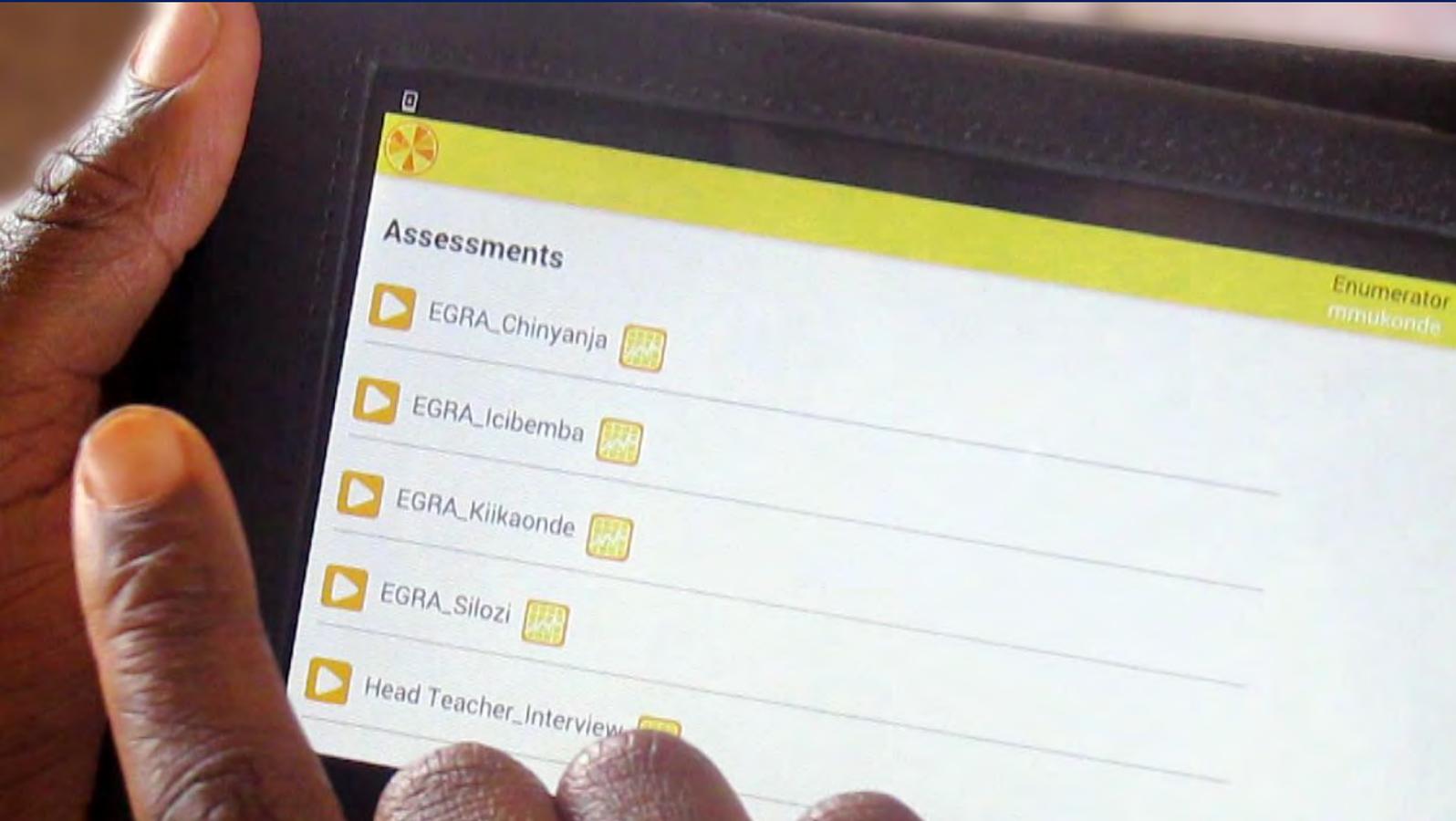


USAID
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READ TO SUCCEED

Midline Survey Report

Final Report



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USAID/ZAMBIA READ TO SUCCEED PROJECT
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LIST OF ACRONYMS/ABBREVIATIONS

AIDS	Acquired Immune-Deficiency Syndrome
ANOVA	Analysis of Variance
CPD	Continuous Professional Development
DEBS	District Education Board Secretary
EFA	Education for All
EGRA	Early Grade Reading Assessment
ELM	Education Leadership and Management
GBS	Government Basic Schools
GRZ	Government of the Republic of Zambia
HIV	Human Immune-deficiency Virus
IR	Intermediate Result
MDG	Millennium Development Goals
MESVTEE	Ministry of Education, Science, Vocational Training, and Early Education
NBTL	New Break Through to Literacy
NISTCOL	National In-service Teachers' College (Now Chalimbana University)
OVC	Orphaned and Vulnerable Children
PALS	Phonological Awareness Literacy Screening
PIRLS	Progress in International Reading Literacy Study
PLP	Primary Literacy Program
PMP	Performance Monitoring Plan
PTA	Parent Teacher Association
RTS	Read to Succeed
SACMEQ	Southern Africa Consortium for Monitoring Educational Quality
SESO	Senior Education Standards Officer
SIR	Sub Intermediate Result
SPRINT	School Program for In-service per Term
SPSS	Statistical Package for Social Sciences
UNESCO	United Nations Educational, Scientific, and Cultural Organization
USAID	United States Agency for International Development
USG	United States Government
ZANEC	Zambia National Education Coalition
ZPC	Zambia Primary Course

1.0. EXECUTIVE SUMMARY

The USAID/Zambia Read to Succeed (RTS) Project works towards improving reading through improved school effectiveness in government primary schools in selected districts in six provinces: Eastern, Luapula, Northern, North-Western, Western, and Muchinga. As a follow up to the Baseline Survey conducted in 2012, the project conducted a Midline Survey in October 2014 to determine levels of early grade reading skills. The survey also examined performance of school teachers, school head teachers, ministry officials' performance and general school assessment. Results are important for project management on key performance indicators and to provide evidence relevant for policy making in the education sector for the Ministry of Education, Science, Vocational Training and Early Education (MESVTEE), donors and other relevant stakeholders.

Survey Purpose:

The purpose of the survey was to compare learners' performance in 2012 before RTS's interventions started with their performance midway of the project life. The survey results are also meant to inform stakeholders about effectiveness of project interventions and help to refine project implementation strategies.

Survey Methodology

RTS tested grade 2 and 3 pupils' reading ability in four local languages in 200 government primary schools in its six provinces. A representative sample of 4,000 learners (2,000 grade 2 and 2,000 grade 3 i.e. 10 grade 2 and 10 grade 3 learners per school) was randomly selected from 200 schools across 16 districts (12 RTS and 4 non-RTS-districts). The 4 non-RTS districts were selected based on 4 local languages in which EGRA was conducted; that is Icibemba, Chinyanja, Kiikaonde and Silozi. The schools were stratified by language and clustered by location (zone, district & province). The Early Grade Reading Assessment (EGRA) is a tool used to measure learners' progress toward learning to read. The EGRA tool was administered by trained assessors to one learner at a time. It examined learners' ability to perform fundamental pre-reading and reading skills. Apart from the EGRA sample, the survey also included a non-random sample of 2 teachers per school for grades 2 and 3 teachers. The teachers were first observed teaching a reading lesson and later interviewed. The sample also included 200 head teachers. Head teachers were first interviewed and later they were asked to provide school statistics on different issues such as enrolments, dropout rates, pregnancy rates, progression rates and others. The survey limitation lies in the fact that EGRA is not curriculum-based and therefore does not assess what was taught in class but overall competence gained by learners.

Summary Findings

EGRA Results: Midline Survey results show that reading skills have improved in RTS supported schools across all EGRA sub tasks for both grades 2 and 3 learners in all six provinces. Grade 2 learners' performance showed more substantial percentage change than their counterparts in grade 3. For example, in 4 out of 7 subtasks tested at baseline, the Midline Survey results indicate that performance of grade 2 learners has increased by more than three-fold. In letter sound knowledge for example, performance improved from 38.1% to 71.7% for grade 2 and from 51.3% to 73.5% for grade 3; representing percentage gain of 33.6% and 22.2% respectively. Improved achievements meant that there was significant reduction on zero scores. For example; zero scores reduced from 61.8% to 28.3% in letter sounds and from 90.0% to 60.2% for non-sense words for grade two learners. In reading passage (fluency), zero scores reduced from 89.0% to 69.0% while in reading comprehension they reduced from 94.4% to 78.4%. Similar to baseline findings, midline results also show that the most difficult task for learners is reading comprehension. Results indicate that learners have substantially improved with respect to skills in letter sounds knowledge and basic reading but they still lack understanding of what they read. In all subtasks, boys performed slightly better than girls.

A comparative analysis of RTS and non-RTS districts showed that RTS districts are doing better than non-RTS in all subtasks except listening comprehension in local languages where both RTS and non-RTS districts performance almost the same (average scores of 3.15 and 3.16) respectively. In letter sounds, the mean score for RTS was 9.71 compared to 6.71 for non-RTS. In non-word reading, the RTS and non-RTS scores were 5.39 and 3.71 while in oral reading passage, they were 7.67 and 5.31 respectively¹.

Provincial performances show that Luapula Province had the highest scores in four subtasks out of eight. The four subtasks are: letter sound, non-word reading, oral reading passage and English listening comprehension. These findings are consistent with baseline results which showed that Luapula Province had highest scores in six subtasks out of a total of seven signifying a consistent performance over the two survey periods.

As for language influence, the survey results indicated that learners whose home language is the same as language of instruction at school performed better than those that use a different language at home with a mean score of 6.23 (2.29 at baseline) compared to 4.98 (1.13 at baseline) respectively in oral reading passage.

Teacher Performance: Midline Survey results showed improved performance on many pedagogical practices. For example, assessors observed more teachers were resourceful-they had self-made teaching aids (85.6% up from 72.6% at baseline). As a result, availability of teaching and learning materials improved from 79.0% at baseline to 97.4% in all schools. It was also noted that more teachers are conducting regular systematic assessments as the score increased from 70.3% at baseline to 83.9% at midline. During interviews, teachers indicated that they use assessment information to identify individual learner abilities and improve teaching and learning. In general, results show that there is positive behavior among teachers as they all exhibited desired pedagogical characteristics such as use of interactive teaching techniques and classroom organization where learners were mostly organized in small groups. Survey results also indicate that there is increased support to teachers through Continuous Professional Development (CPD) that is carried out by head teachers and zone officials. Teachers also reported that more parents and members of the community are increasingly engaged in learning activities thereby enforcing a culture of accountability.

Head Teacher performance: The results demonstrate that head teachers are increasingly focusing on their leadership roles. They provide instructional leadership by ensuring that teachers develop teaching lesson plans by observing teachers (88.9% up from 29.6%) and by motivating teachers through positive feedback (68.9% up from 30.0% at baseline). Evidence also point to the fact that there is substantial involvement and focus on promotion of effective reading by head teachers. For example, nearly all head teachers (99.5%) said that literacy is taught as a separate subject for an average period of 60 minutes. This represents a significant change from baseline, where only 25% indicated that literacy was taught as a separate subject. Further, results show that head teachers were focused on ensuring quality teaching and learning while retaining strong administrative oversight. All head teachers said it is their responsibility to help teachers teach better in schools and they do it via open communication (78.0% up from 24.1% at baseline) and knowledge (66.3% up from 19.4% at baseline). The collaboration with PTA and general community members has been strengthened as evidenced by the increase of about 7% from 13.0% at baseline to 21.6% at midline. At baseline, only 31.5% of head teachers had received training for their current roles, but at midline, almost three quarters (64.2%) were trained. All head teachers indicated that Teacher Group Meetings (TGMs) are a key feature of CPD at school and zone level resulting into fairly strong CPD culture in many schools. Head teachers also reported that visits from district and provincial officials increased to 4 from an average of 3 visits per year, further strengthening CPD.

¹ Results were statistically significant (P<0.000).

MESVTEE Officials: Many officials (91.2%) demonstrated understanding of how to teach reading in schools. They are aware that schools set aside time for teaching reading and they further know that schools use official local language as a medium of instruction for grades 1 and 2. In addition, most officials (85.3%) know that the common method of teaching reading in schools is sounding out letters and decode words as opposed to memorizing (2.9%) and reciting (5.9%). They stated that the major challenge faced by schools in with respect to teaching of reading is shortage of materials (73.5%) and poor teaching practices (44.1%). Results also indicate that more officials (85.3% compared to 29% at baseline) personally use information they gather from schools to monitor implementation of plans. With regards to assessing head teachers' attitude towards planning, 79.4% (45% at baseline) of all officials think that head teachers are willing to plan because they feel that their school can change for the better. Support from zone officials towards school monitoring was well noted by 94.1% (up from 69% at baseline) of district and provincial officials. They rated them as highly effective 17.6% (0% at baseline), quite effective 64.7% (53% at baseline), partly effective 11.8% (41% at baseline) and not effective 0% (6% at baseline). These results reflect a growing positive attitude among officials towards promotion of quality teaching and learning in schools.

Conclusion: The Midline Survey results demonstrate an improved picture from the one captured at baseline. A growing number of learners have mastered basics in letter naming and letter sounds but still fall short of required skills to read and comprehend grade level text. This survey report demonstrates that progress has been recorded but more still needs to be done. With regards to school effectiveness, more teachers demonstrated desirable pedagogical practices such as lesson planning, development of teaching aids, using interactive teaching techniques, conducting regular assessments and engaging with parents and community. In addition, head teachers provided close supervision of teachers particularly with respect to classroom observations. Zone officials were more active as they organized CPD meetings and visited individual schools more regularly to provide onsite coaching and mentorship. District and provincial officials provided regular support to schools leading to improving learner performance. Overall, the evidence shows improvements in many areas of school management with RTS districts recording better performance than non-RTS districts. However, the noted changes are not substantial enough to have a big impact on the entire system.

Recommendations:

- There is need for increased investment in the production and distribution of reading materials
- Support teachers to extend their teaching from letter sounds to fluency and comprehension
- Increase use of assessment data to improve teaching and learning
- School head teachers and officials should enforce homework policy at school level
- Encourage more parental involvement in learners' academic processes
- There is need to strengthen school-based coaching and support particularly through zonal officials.

2.0. BACKGROUND

2.1. Introduction

There is sufficient evidence in international literature to demonstrate that reading is a foundation skill to other learning activities (Wolf, 2007). Children who fail to learn to read in the first few grades of school become handicapped in later grades to learn increasing amounts of instructional content across all subject areas. Reading skills necessary to become “literate” do not develop naturally; learners have to learn to adapt the part of their brain that recognizes images to be able to recognize written letters and words (Wolf, 2007). As has been confirmed by researchers in reading acquisition in multiple alphabetic languages where print material can be decoded into sounds, learners need to acquire five basic reading skills to read well (*National Reading Panel, 2000*):

- **Phonemic awareness**—ability to hear, identify and manipulate individual sounds in spoken words. It also deals with the ability to differentiate sounds(phonemes) through hearing
- **Phonics**—relationship between sounds and letters that make up words;
- **Fluency**— reading accurately, quickly and with expression;
- **Vocabulary**—Degree of knowledge of words (both oral and written) and their meaning; and
- **Comprehension**—understanding the concepts read or heard.

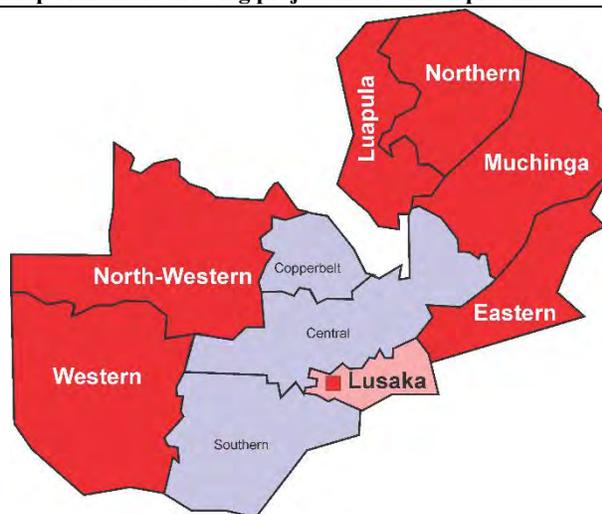
According to Roskos et al (2009), the first three reading development stages focus on foundation skills of learning to read. Once children learn to apply the foundational reading skills in early grades, they can then move beyond the task of decoding text to deriving meaning. In subsequent grades, children begin to derive meaning and develop understanding. As children learn sounds that link to form words, they begin connecting those sounds to printed words and the idea behind those words. Thereafter, they start to identify letter sounds, form syllables and words and link words to form sentences, paragraphs and read and write stories. It is at these crucial early stages that children transit from “*learning to read*” to “*reading to learn*”. At grade three and beyond, comprehension is the ultimate prize! Fuchs *et al* (2001), assert that the critical strand in this process is oral reading fluency, as measured by the number of words read correctly per minute.

Following the Baseline Survey conducted in October 2012, RTS conducted a Midline Survey in October 2014 with a view to comparing learner performance for the two survey periods. Both surveys examined early grade reading skills for Grades 2 and 3 learners. In addition, surveys collected performance data from primary school teachers, head teachers, district MESVTEE officials and general school performance using overall school education statistics data. Results of the Midline Survey are important not only for project decision making but also for informing MESVTEE, donors and other relevant stakeholders about current reading performance and their implications for the education sector. In broader context, the report provides feedback regarding relative effectiveness of various instructional approaches introduced by MESVTEE/RTS with a view to identifying particular areas of need for further attention and investment by the MESVTEE and cooperating partners.

2.2. Read To Succeed Project Description

RTS Project is funded by the U.S. Agency for International Development (USAID) in partnership with the Government of the Republic of Zambia (GRZ). The RTS Project is a five-year activity that aims to improve early grade reading through school effectiveness in Government primary schools in six provinces: Eastern, Luapula, Northern, North Western, Western and Muchinga. A meager learning environment, weak school management and leadership, and insufficiently skilled teachers has combined with the consequences of poverty and the HIV-AIDS pandemic to create an environment-at school and at home inimical to student learning and full participation in class. According to SACMEQ², Zambia exhibited the lowest student achievement scores among the Southern African Development Community - SADC.

Map 1: Map of Zambia showing project intervention provinces



RTS takes a “whole school, whole teacher, whole child” approach to ensure that government primary schools become centers of effective learning, care and support providing children with opportunities to learn and flourish. As noted in the background section, acquiring reading skills in early grades is critical to student performance in all subjects and therefore a catalyst for successful progressions through primary school, and promoting self-esteem. With the goal of improved reading outcomes, RTS works with Government counterparts to adapt and/or operationalize policies, enhance (or create) systems, and develop procedures to address key elements common to effective schools; learning, teaching, assessment, school management, parental participation, and support for children’s holistic needs. Employing a phonics-based approach to teaching early grade reading in local languages, RTS develops teacher Continuous Professional Development (CPD) program and renders technical support to MESVTEE to develop materials for reading. RTS applies face-to-face cluster level training augmented by school-based activities and regular cluster meetings that resulted into training several staff members from one school as opposed to having single representation in training workshops. This approach is meant to ensure continuity even in the case of numerous transfers of trained teachers.

For effective and smooth implementation of activities, RTS works closely with MESVTEE provincial and district personnel. RTS supported the MESVTEE in the development of reading and school effectiveness strategies and technical approaches and RTS trained MESVTEE provincial and district officials to actively engage in school support to improve reading and ensure accountability by all stakeholders especially teachers and parents. To increase learners’ resilience against social pressures, guidance and counseling capacity in all schools was developed to help support girls and children made vulnerable by HIV/AIDS. Communities were engaged in provision of support and services to schools and children with a view to improving learning quality. The University of Zambia (UNZA) and Colleges of Education (COEs) located in target provinces work with RTS on the research agenda developed with MESVTEE to analyze gaps and identify best practices for teaching reading for school effectiveness.

² Southern Africa Consortium for Monitoring Education Quality (SACMEQ) is a regional think on matters of education. The group conduct surveys which assess education quality in SADC member countries

2.3. RTS Development Hypothesis

The RTS development hypothesis is: to increase student learning outcomes in reading, schools must be more effective in providing the services children need to learn. To do so, schools—and the system supporting them—must: strengthen instructional and management quality; use both student assessment techniques and data to monitor and adjust the teaching-learning process; and offer students’ support that mitigates the impact of HIV-AIDS, socio-economic and gender inequities. Engaging local institutions in research and inquiry will produce information to feedback into continual improvements.

The following subsection provides a diagrammatic and relational summary of the RTS Project Results Framework (RF).

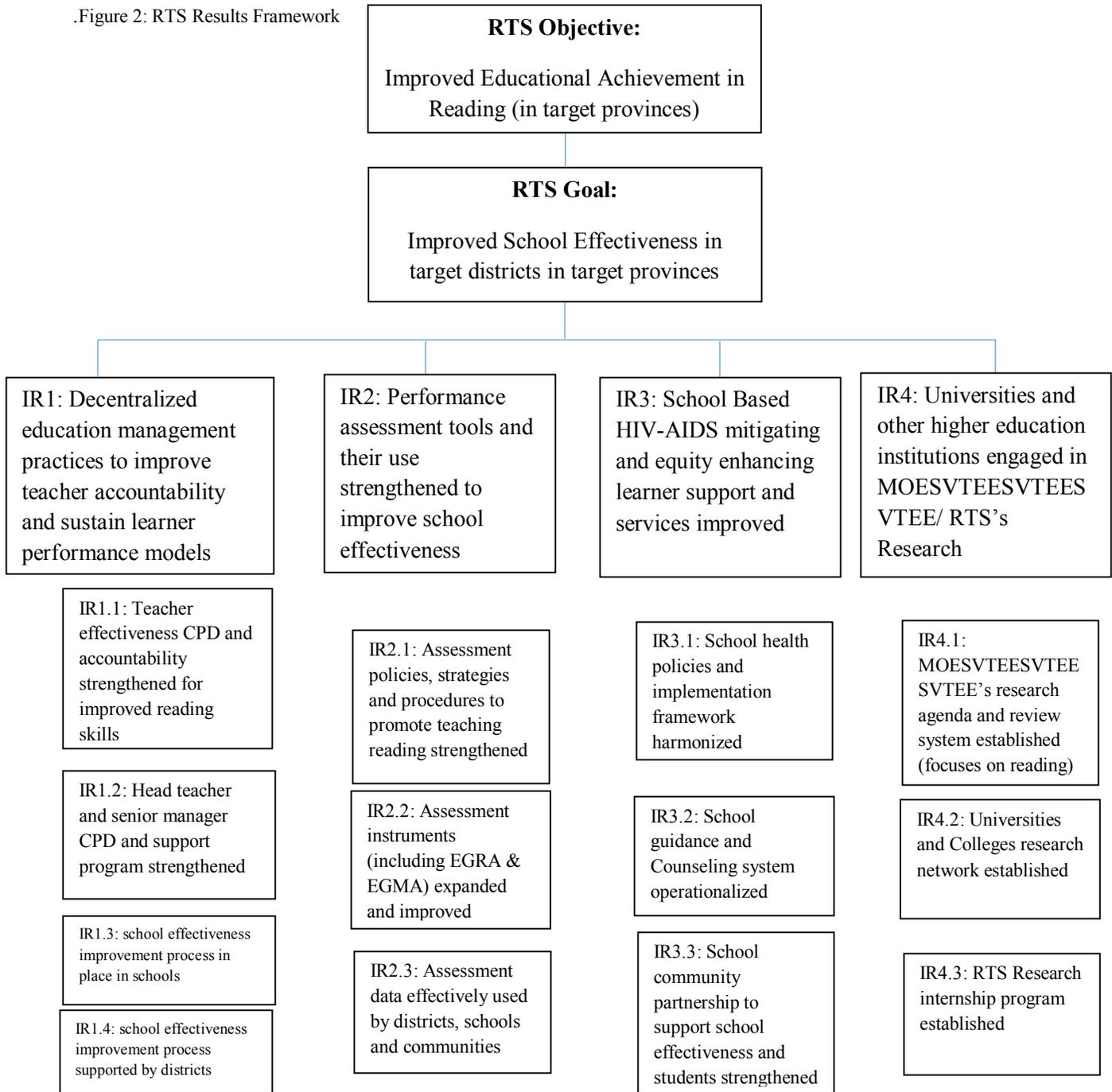
2.4. RTS Results Framework

The RTS Results Framework (RF) reflects this logic and depicts the causal relationships, congruent with the Mission’s Results Framework for IR3.1.³ The RTS RF, presented below, graphically depicts the project’s results-based strategy for achieving the RTS Objective and Goal and contributing to USAID/Zambia’s IR 3.1 and Development Objective 3.

The RTS Results Framework is organized on four levels: the RTS Objective, the RTS Goal, the Intermediate Results (IR), and Sub-Intermediate Results (SIR). The RTS RF provides the structure for its PMP, the work plan, budget, project chart of accounts, and reports.

³ See “USAID/Zambia 2011-2015 CDCS Performance Management Plan, Development Objective 3: Human Capital Improved, Intermediate Result 3.1: Educational Achievement in Reading Improved (May 2012).”

Figure 2: RTS Results Framework



3.0. METHODOLOGY

3.1. Methodology Overview

This Chapter outlines the processes and mechanisms of how the survey was designed and conducted. Particular attention was paid to sampling design and data collection procedures. The major domains of data collection and analysis were zones, districts, provinces and an aggregate of six provinces. The other key domain was language, as it considerably influenced sampling design and development of data collection tools. It should be noted that the methodology designed at baseline is the same one used at midline. The data was collected from the same schools as those at baseline.

A representative sample of 4,000 children (2,000 grade 2 and 2,000 grade 3, i.e. 10 grade 2 and 10 grade 3 learners per school) was randomly selected from 200 schools across 16 districts (12 RTS and 4 non-RTS districts). The 4 non-RTS districts were selected based on 4 local languages in which EGRA was conducted; that is, Icibemba, Chinyanja, Kiiikaonde and Silozi. This is the reason why there are no control districts for Luapula and Northern Provinces because Icibemba is spoken across three provinces. Therefore, the choice of Mpika was representative for all Icibemba speaking provinces.

3.1.1. Sampling Frame

The learners' target population for the RTS Midline Survey was grade 2 and 3 pupils enrolled in 200 Government primary schools in Eastern, Muchinga, Northern, Luapula, North-Western and Western provinces. The sampling frame was obtained from the MESVTEE Directorate of Planning and Information. The table below summarizes the sampling frame.

Table 1: The RTS Midline Sampling Frame - No. of Schools from each District by Randomization Arm

Language	Province	Districts	Randomization Arm	# Schools
Icibemba	Northern	Mungwi	RTS	70
		Mporokoso	RTS	64
	Luapula	Mansa	RTS	134
		Mwense	RTS	60
	Muchinga	Chinsali	RTS	168
		Isoka	RTS	45
		Mpika	Non-RTS	115
Sub total				656
Chinyanja	Eastern	Chipata	RTS	203
		Lundazi	RTS	148
		Katete	Non-RTS	94
	Sub total			
Kiiikaonde	North Western	Solwezi	RTS	118
		Mufumbwe	RTS	36
		Kasempa	Non-RTS	51
	Sub total			
Silozi	Western	Mongu	RTS	104
		Sesheke	RTS	76
		Kaoma	Non-RTS	122
	Sub total			
Overall Total				1,608

3.1.2. Sampling

The survey adopted stratified cluster random sampling technique. The schools were stratified by language and clustered by location (zone, district & province). The sampling procedure was done at two levels; (a) sampling zones and schools (*pre-survey*) and (b) sampling learners (*during survey*).

(A) Level 1: Sampling Zones and Schools (pre-survey)

In order to make logistics easy, the RTS survey coordination team decided to cluster schools by zone. This meant that once the zone was chosen, there was high probability of having more than one school in one zone, hence reducing on travel time and maximizing on quality interviewing. The zones were selected using simple random sampling from the sampling frame obtained from the MESVTEE. The number of zones was determined after computing the average number of schools per zone. Thereafter, the total number of schools in both intervention and control schools was used as reference for comparing with the average number per zone and then determined how many zones would be required to meet the number of schools selected for the survey. For example, if one (1) zone in Mungwi district has an average of 7 schools and number of schools required for the survey is 8, then 2 zones were adequate. Once the required number of zones was determined, then simple random sampling was used to pick the required number of zones using RANDBETWEEN Excel Function.

After choosing zones, the sampling frames were adjusted to only the list of schools that are in the selected zones. It should be noted that computations of schools per zone ratio showed an average number of 7 schools per zone across districts. Using the Mungwi example above, a sampling frame with 14 schools was enough to sample 7 schools. The 7 schools were chosen using simple random sampling.

As evident from Table 1, all RTS intervention districts were included in the sample but control districts were purposively selected mainly because of easy access from the provincial capital and language representation as already mentioned above. Other factors considered were similar characteristics of education pattern of the district near the provincial capital for purposes of comparative analysis.

(B) Level 2: Sampling learners (during survey)

The sampling method used in Level 2 was systematic random sampling. Selection of learners was done at respective schools. Once the survey team arrived at the school and formalities were completed, the team leader asked for grades 2 and 3 class registers which were used for sampling actual learners that were tested during the survey. The interval (I) was calculated by dividing the total number of learners on register with the sample size (s) which is 10 for each grade. See illustration below:

$$I = \frac{\text{Total number of learners registered in grade}}{\text{Sample size}}$$

For example, if there were 60 students registered in grade 2 and given the sample size of 10 learners per grade, then the equation above was substituted as follows;

$$I = 60/10 \text{ and the answer is } 6.$$

After calculating the interval, it was then used to systematically pick every **1th learner** on class register in that respective grade. In the example above, it is every 6th learner on class register, starting with child number 6 on register. To ensure gender balance, sampling took into account proportional representation for both girls and boys registered in each class so that neither was over nor under represented.

The following table summarizes EGRA sample size and response rate by language, province and district.

Table 2: EGRA Sample Size & Response Rate

Language	Province	Districts	Randomization Arm	Target Schools	Actual schools	Target Pupils	Actual Pupils	Response Rate (%)	
Icibemba	Northern	Mungwi	RTS	7	7	140	139	99.3	
		Mporokoso	RTS	7	7	140	140	100.0	
	Luapula	Mansa	RTS	8	8	160	163	101.9	
		Mwense	RTS	5	5	100	99	99.0	
	Muchinga	Chinsali	RTS	8	8	160	160	100.0	
		Isoka	RTS	5	5	100	100	100.0	
		Mpika	Non-RTS	10	10	200	200	100.0	
	Sub total				50	50	1000	1001	101.1
	Chinyanja	Eastern	Chipata	RTS	20	20	400	386	96.5
Lundazi			RTS	20	20	400	407	101.8	
Katete			Non-RTS	10	10	200	196	98.8	
Sub total				50	50	1000	989	98.9	
Kiikaonde	N. Western	Solwezi	RTS	32	30	640	640	100.0	
		Mufumbwe	RTS	8	8	160	162	101.3	
		Kasempa	Non-RTS	10	10	200	193	96.5	
	Sub total				50	48	1000	995	99.5
Silozi	Western	Mongu	RTS	24	24	480	481	100.2	
		Sesheke	RTS	16	16	320	319	99.7	
		Kaoma	Non-RTS	10	10	200	199	99.5	
	Sub total				50	50	1000	999	99.9
Overall Total				200	197	4000	3984	99.6	

Non EGRA Sampling

Apart from learners' sample for EGRA administration, the survey also included a non-random sample of 2 teachers that handle grades 2 & 3 classes per school for grades 1- 4 (targeted 400 teachers but captured 387 representing 96.8%). Teachers were first observed teaching a reading lesson and later interviewed on different aspects of pedagogical practices. The sample also included 200 head teachers. The head teachers were interviewed and then were also asked to provide school statistics on different issues (enrolments, dropout rates, pregnancies, progression rates etc.)

3.1.3. Training

Training was hands-on for all survey team members from day one; particularly that data collection was through android tablets that were loaded with Tangerine software. It should be noted that training in how to use tablets was done with the help of a technology expert from Creative HQ office in Washington. All assessors were oriented to project design which aimed to help them understand the project context. In addition, they were oriented to the survey purpose and objectives. This was important because it helped them understand their role in the survey. The training was hands-on and participatory in many ways. Facilitators organized the assessors in component groups (*i.e. EGRA assessors, classroom observation/teacher assessors & head teacher/school data assessors*). Each group went through its respective survey questionnaire(s) step-by-step on their tablet. After going through each questionnaire question-by-question, facilitators ensured that all assessors practiced through role plays within each group. The discussion and feedback from practice sessions helped assessors to reinforce understanding of the survey instruments and further helped them to re-align some questions which were not clear.

In order to ensure that only qualified assessors were selected, all assessors were tested and only those that scored over 70% were retained. Assessors were tested for knowledge of letter sound knowledge,

instruments, ability to follow instructions, amount of errors committed, flexibility with tablets and including interpersonal skills with team members. Any assessor who did not pass the test was disqualified.

3.1.4. Pre-testing

As part of training, all assessors practiced using tablets in a real setting when they pre-tested at 9 government primary schools in Lusaka. Since there were 9 teams, each team went to one school and each assessor practiced using their respective questionnaire on the tablet in a real setting. Each team was accompanied by an RTS staff members, as observers of the process. Feedback from pre-tested questionnaires was used for the final questionnaire editing on tablets before teams were deployed to the field.

3.1.5. Data Collection

Midline Data Collection Teams

Similar to baseline, RTS contracted independent assessors as data collectors. With a view to improving data quality and ensuring consistence, RTS retained and re-trained 69% of data collectors used at baseline. New team members were easily integrated into old teams. Data were collected simultaneously in all 16 districts. Fieldwork exercise began on October 13th and ended on 7th November 2014. Nine (9) survey teams comprised of 5 persons each; 2 for EGRA testing, 2 for classroom observation/teacher interview and 1 for head teacher interview as well as school data.

Data Collection Tools

There were five sets of data collection tools for different target survey respondents. This was in line with RTS intervention approach which targets ‘whole school’, ‘whole teacher’ and ‘whole child’ with a goal to improve school effectiveness and learner performance. Data collection tools used at baseline were the same ones used at midline. Below are details of each tool:

(a) Early Grade Reading Assessment (EGRA)

The EGRA tool was administered by University of Zambia students in respective official local languages to grades 2 & 3 learners in all schools in the sample. The tool had eight tasks on which learners were tested. The tasks were;

1. Orientation to Print
2. Letter sound knowledge (phonemic awareness)
3. Non-word decoding/reading (meaningless words)
4. Oral reading passage (reading fluency)
5. Reading comprehension
6. Listening comprehension
7. English vocabulary
8. English listening comprehension

(b) The Classroom Observation Tool & Teacher Interview and Performance Checklist

This tool was intended to capture actual action of how teachers taught reading lessons in schools. The focus of this tool was on observing classroom environment, classroom organization, instructional content, class activities, teaching methods, teacher’s assessment of learners, teacher position while teaching and the overall observer’s reflection of the reading lesson.

To make one complete set, the same teacher whose reading lesson was observed was later interviewed by the same observer. Questions centered on classroom management, lesson planning, time on reading, reading knowledge, teaching methods, teaching aids, student assessment, continuous professional development, teacher monitoring and support and interaction with parents.

Head Teacher Interview Form & School Data

With the aim to capturing issues on leadership, the survey interviewed head teachers on different aspects. Among them were: general pedagogical leadership, pedagogical leadership with a focus on reading, school management, guidance and counseling, Continuous Professional Development (CPD), parental/community support, and external monitoring support from provincial and district officials.

Related to the head teacher interview form was the School Data Form which collected data on general school information (state of infrastructure such as classrooms, toilets, furniture, adequacy of reading materials, availability of electricity, running water etc.). Other key data were enrolments for academic years 2013/2014, teacher details and girls and OVC services provided at the school.

MESVTEE Officials Interview

This form captured data relevant for assessing provincial and district officials' support to schools. The targeted officials were:

- 1 SESO Languages (provincial), 1 Provincial Resource Centre Coordinator: Primary Schools
- 1 DEBS across RTS target districts
- 2 (District) Education Standards Officers: General Inspection (1 per intervention district)
- 2 District Resource Centre Coordinators: Primary Schools (1 per intervention district)

3.1.6. Data Quality Assurance

In this survey, data quality assurance was embedded in the entire process from design to report writing to ensure rigorous methods and credible results. Since this was a repeat of baseline, same data collection tools that were developed in close consultation with key stakeholders. First, MESVTEE officials and USAID partner projects like Time to Learn provided input. Secondly, data collectors were all thoroughly trained for 5 days before sending them into the field. This ensured uniform understanding of the survey objectives and how to use the survey instruments. Third, the practical approach (role plays) on how to use data collection tablets during training and the pre-testing of all tools on tablets gave data collectors the feel of real practice of the assignment, thereby enshrining validity and reliability of results.

Fourth, in order to further re-enforce and ensure consistency of data quality, all team leaders were given a copy of survey guidelines. The guidelines provided details of all survey procedures including sampling at school level, reporting lines, daily feedback team meetings, coding, how to summarize qualitative observations and how to upload data and submit to the Tangerine system.

Fifth, all teams worked under the leadership of the RTS officials; either provincial team leaders and/or advisors based in Lusaka. All supervisors in the chain checked for consistency and quality of assessments for all data submitted.

Lastly, the M&E Director was in touch with all survey team leaders on a daily basis to ensure a seamless process of data collection throughout the survey. The daily feedback meeting was essential because team leaders were given advice on what to do in real time thereby avoiding delay in survey implementation. At the end of data collection, the M&E Director conducted a thorough review of all data submitted by each team. He checked for errors and completeness before approving the teams' payment.

Overall, the data quality control procedures were watertight and were made easier by the use of Tangerine software for data collection.

3.1.7. Data Processing & Analysis

As mentioned in the data quality assurance section above, all data were checked for correct coding and consistency before they were uploaded to the system. Data were downloaded from the Tangerine server in CSV format and later converted to regular Excel spreadsheet before transforming it into SPSS. Data was

analyzed using a combination of software SPSS and MS Excel. Analysis was mainly descriptive i.e. mean, median, mode, range, standard deviation and related statistics. Statistical testing took the form of Chi-Square and T-Test. All statistical tests were important because they enabled the author to isolate variables' contribution and/or their association or relationship with each other.

3.1.8. Limitations

Midline Survey results are not generalizable to the whole Zambia but only applicable to RTS districts. Further, non-RTS districts have also received partial interventions since MESVTEE rolled out Primary Literacy Program to all schools in Zambia. Therefore, comparison between RTS and non-RTS districts should be done with this limitation in mind. The other important limitation is the fact that the EGRA test is not curriculum based which entails that learners were tested in something not taught in class, thereby increasing the probability of failure since the test was unfamiliar to them. It should be noted that learners tested in 2014 are different from those tested in 2012. Therefore, both groups took the EGRA test for the first time. In addition, this survey did not collect qualitative data that could have provided rich contextual explanations to support generated statistics.

4.0. FINDINGS AND DISCUSSION

4.1. Early Grade Reading Assessment (EGRA)

4.1.1. EGRA Summary Analysis

The Midline Survey results show that over the last two years, reading skills have improved in RTS supported schools across all EGRA sub tasks for both grades 2 and 3 learners in six provinces. Grade 2 learners' performance showed more substantial percentage change than their counterparts in grade 3. For example, in 4 out of 7 subtasks tested at baseline, the Midline Survey results indicate that performance of grade 2 learners has increased by more than three-fold. In letter sound knowledge, performance improved from 38.1% to 71.7% for grade 2 and from 51.3% to 73.5% for grade 3; representing percentage gain of 33.6% and 22.2% respectively. See Table 3a for more details while Table 3b presents the flipside; that is, learners with zero scores. Even though grade 2 learners showed greater improvement in the midline score compared to the baseline results, grade 3 learners still maintain higher scores than their grade 2 counterparts. This may be due to the fact that grade 3 learners were introduced to the new reading pedagogy when they were in grade 2 as their teachers did receive training by RTS together with grade one teachers. It is also possible that both grades 2 and 3 are getting the same treatment since grade 2 teachers are likely to be the same ones handling grade 3 classes as well, owing to the shortage of staff in many schools.

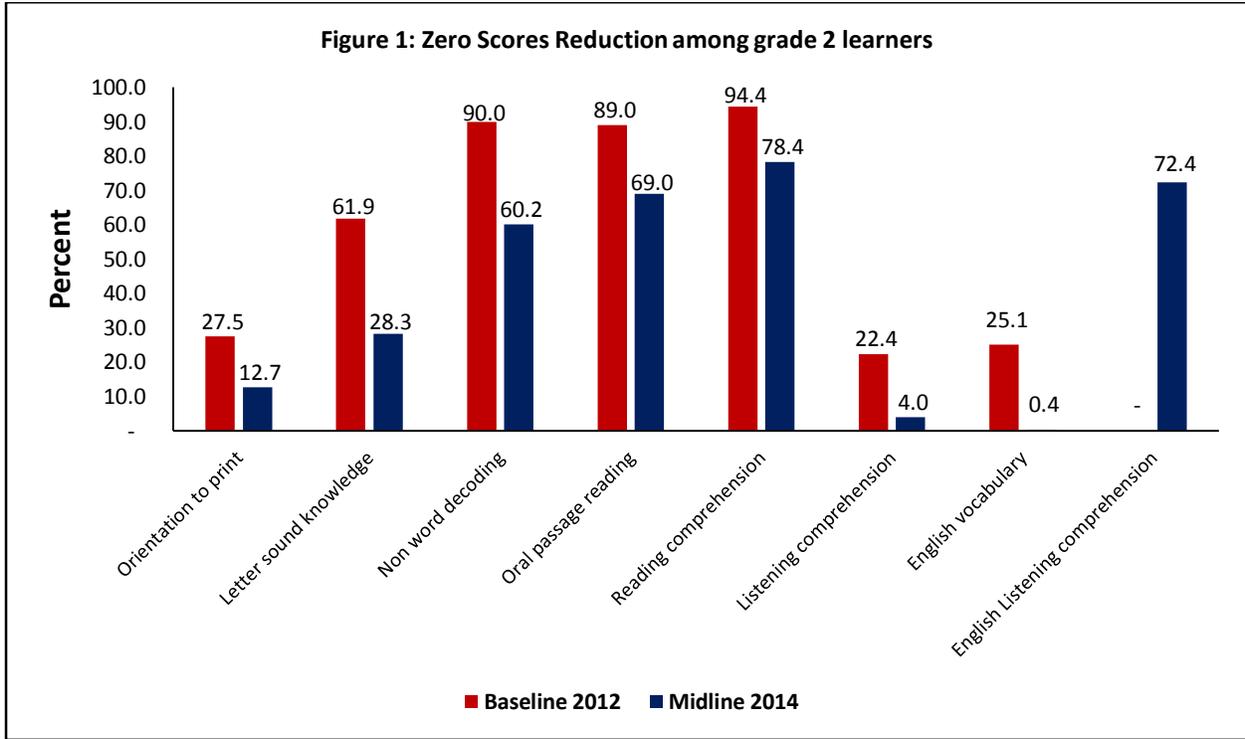
Table 3a: Percentage of learners that obtained at least 1 correct mark across EGRA subtasks.

EGRA Subtasks	Grade 2		Grade 3		Both Grades	
	Baseline (%)	Midline (%)	Baseline (%)	Midline (%)	Baseline (%)	Midline (%)
Orientation to print	72.5	87.3	77.1	89.8	74.8	88.6
Letter sound knowledge	38.1	71.7	51.3	73.5	44.7	72.6
Non word reading	10.0	39.8	19.8	50.8	14.9	45.3
Oral reading fluency	11.0	31.0	20.3	41.6	15.7	36.3
Reading comprehension	5.6	21.6	12.2	31.0	8.9	26.3
Listening comprehension	77.6	96.0	81.8	97.3	79.7	96.7
English vocabulary	74.9	99.6	74.4	99.6	74.7	99.6
English Listening comprehension	NA	27.6	NA	42.5	NA	35.1

Table 4b: Percentage of learners with zero scores⁴.

EGRA Subtasks	Grade 2		Grade 3		Both Grades	
	Baseline (%)	Midline (%)	Baseline (%)	Midline (%)	Baseline (%)	Midline (%)
Orientation to print	27.5	12.7	22.9	10.2	25.2	11.4
Letter sound knowledge	61.9	28.3	48.7	26.5	55.3	27.4
Non word reading	90.0	60.2	80.2	49.2	85.1	54.7
Oral reading fluency	89.0	69.0	79.7	58.4	84.3	63.7
Reading comprehension	94.4	78.4	87.8	69.0	91.9	73.7
Listening comprehension	22.4	4.0	18.2	2.7	20.3	3.3
English vocabulary	25.1	0.4	25.6	0.4	25.3	0.4
English Listening comprehension	NA	72.4	NA	57.5	NA	64.9

⁴ Figure 1 has better illustrative picture of zero reductions



Both Tables 3a and 3b show that the most difficult tasks are reading comprehension (26.3%, oral reading passage (36.3%) and non-word decoding at 45.3%. There is a slight reshuffle from baseline results where oral passage reading was the third hardest task at 15.7% compared to non-word reading at 14.9%.

Results also show that listening comprehension (local language), English vocabulary and orientation to print are not problematic. Over three quarters (i.e. more than 70%) of both grades 2 and 3 have good knowledge of letter sounds which form the basis for improvements in non-word reading, oral reading and reading comprehension. Despite marked improvements from baseline, data shows that some learners have still failed to acquire mastery skills in decoding, reading fluency and comprehension. A comparison of listening comprehension in local language and listening comprehension in English showed a wide disparity. Learners performed better in local language listening comprehension (96.7%) than in English listening comprehension (35.1%). This result indicates that use of local languages is more advantageous as medium of instruction compared to English.

Table 4 shows a similar trend in learners’ performance where: reading comprehension, oral passage reading and non-word decoding have the lowest mean scores, thereby demonstrating once again that learners found these three subtasks as the most difficult reading skills to acquire. Just like at baseline, midline data equally indicates that reading comprehension is particularly more problematic to learners than any other EGRA subtasks. The data point to the fact that lack of sufficient practice in decoding skills leaves learners without proper skills to read or decode new words.

Table 5: EGRA mean scores by grade

EGRA Subtasks	Grade 2		Grade 3		Both Grades	
	Baseline	Midline	Baseline	Midline	Baseline	Midline
Orientation to print (3) ⁵	1.85	2.36	2.07	2.47	1.96	2.42
Letter sound knowledge (100)	3.10	8.84	4.86	9.56	3.98	9.20
Non-word reading (100)	0.98	4.30	2.15	5.90	1.57	5.10
Oral reading fluency (32-56)	1.32	5.67	2.99	8.85	2.16	7.26
Reading comprehension (5) ⁶	1.8%	8.8%	4%	14.2%	3%	11.6%
Listening comprehension (5)	31.6%	60.8%	35%	65.2%	33.4%	63%
English vocabulary (20)	5.91	7.96	6.27	8.80	6.09	8.38
English listening comprehension (5)	NA	12.0%	NA	20.2 %	NA	16.2%

In the context of national standards, the reading performance still fall short of minimum requirements of 25 and 40 correct words read per minute⁷ for grades 2 and 3 respectively. This means that despite substantial progress recorded, there is still a lot to do towards achieving and surpassing acceptable minimum standards. Increasing effort and refining strategies for better results should take center stage and maintain the momentum of generated results so far across target provinces.

Table 5 indicates large percentage gains between baseline and midline. The highest gain was noted in reading comprehension (296.6%), followed by gains in oral reading 237%, non-word reading 225.9%, and letter sounds 131.2%. Analysis of percentage gains within each grade shows that improvement by grade 2 learners is higher than that of grade 3 learners. See Table 5 for details. The reason why grade two learners have shown more improvements than grade three may be due to the fact that RTS interventions started when they were in grade one. In this sense, they have received full package of all RTS interventions.

Table 5: Analysis of percentage changes

Selected EGRA Subtasks	% change in each grade	
	Grade 2	Grade 3
Letter sound knowledge	185.2	96.7
Non-word reading	338.8	174.4
Oral reading fluency	329.6	196.0
Reading comprehension	388.9	255.0

As scholars and educationists continue to explore best ways of addressing illiteracy, some studies, for example, Roskos et al. 2009 showed that in third grade, friendships become extremely important, as children long to be part of a group. Skillful teachers should take advantage of learners' need for social interaction by planning small and large group work on longer and more complex projects. A struggling reader might pick up a new reading strategy from a more literate peer, but may also take pride in being the "master" artist that the group relies on. According to Roskos et al. 2009, stages of reading development - grades 1-3, *confirmation and fluency*, students develop fluency in reading, recognize patterns in words,

⁵ Numbers in brackets indicate the total out of which the test was marked. Oral reading passage has range 32-56 because each test language had its own total. i.e. Chinyanja (40), Icibemba (47), Kiikaonde (56) and Silozi (32) words

⁶ Please note that for all comprehension tasks, 1 correct answer is equivalent to 20%.

⁷ MESVTEE Reading Performance Level Descriptors (PLDs) for Grades 1-4. (2014) Pp 20 & 34). Please note that this document is still being validated by stakeholders even though the MESVTEE has endorsed it.

check for meaning and sense, and know the stock of sight words. At this stage, children are learning to read which later translate into better performance.

There is a close relationship between oral reading fluency and reading comprehension because fluency measures whether students have the ability to read with enough speed and automaticity, so that they can concentrate on comprehension rather than sounding out every word. Learners who sound out each word use most of their working memory thinking about the sounds that letters make and then putting the sounds together. While students who read fluently decode words automatically and can use their working memory to make meaning of what was read, reading fluency is necessary but not sufficient for comprehension; it is only one piece of the comprehension process (Roskos et al. 2009). To improve comprehension, letter sound knowledge, as a predictive skill for later reading success, should be emphasized more. Roskos et al. (2009) further contend that for successful management this process requires the ability to work systematically, that is, moving from letter sounds to words ensuring that students grasp the mechanics of identifying and blending words or sounds while at the same time understanding the process of separating (and manipulating) words into sentences.

4.1.2. EGRA Analysis by province

Provincial performances show that Luapula Province had high scores in four subtasks out of eight. The four subtasks are: letter sound, non-word reading, oral reading passage and English listening comprehension. This finding is consistent with baseline results which showed that Luapula Province had high scores in six subtasks out of a total of seven signifying a consistent performance over the two survey periods. Other provinces with high scores were: North-Western Province in orientation to print and listening comprehension subtasks, Western Province in reading comprehension and Eastern Province in English Vocabulary. Figure 1 provides details of performance in three key tasks: letter sound (LS), non-word reading (NW) and oral reading fluency (ORF). The three were chosen for visual presentation because they are considered as key building blocks for effective reading and improved performance.

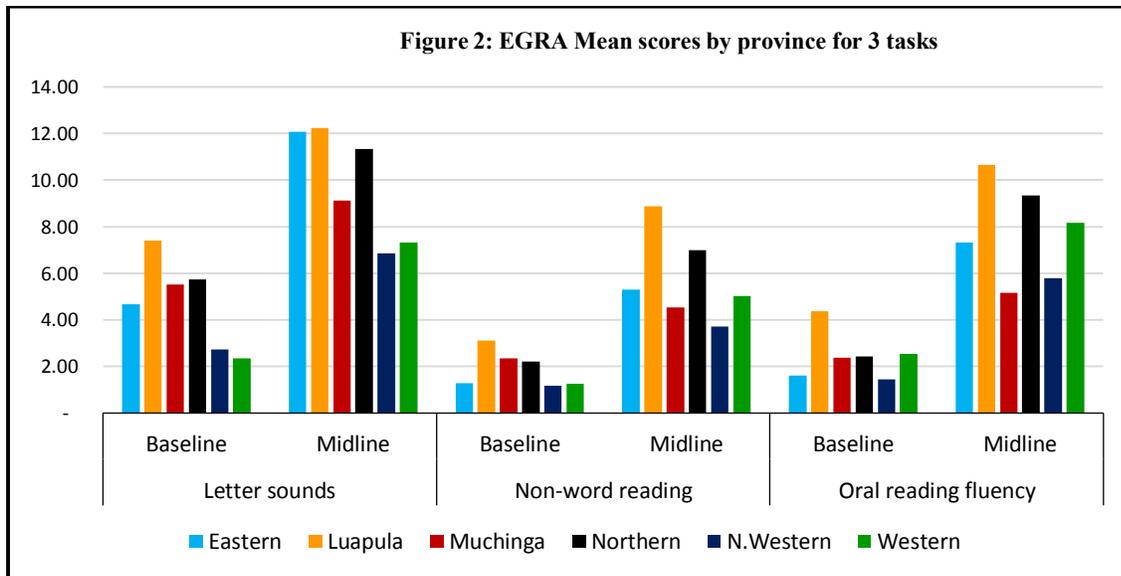


Table 6: EGRA mean score by subtask and province

Province	Orientation to Print		Letter Sound		Non Word Reading		Oral Reading Fluency		Reading Comprehension		Listening Comprehension		English Vocabulary		English Listening Comprehension	
	BL	ML	BL	ML	BL	ML	BL	ML	BL	ML	BL	ML	BL	ML	BL	ML
Eastern	1.91	2.56	4.68	12.07	1.27	5.29	1.61	7.31	1.6%	11.8%	36.6%	64.6%	5.35	8.96	NA	21%
Luapula	2.13	2.29	7.41	12.24	3.11	8.88	4.38	10.66	6%	12%	38.4%	50.8%	9.05	8.68	NA	28.8%
Muchinga	2.29	1.99	5.52	9.12	2.33	4.54	2.37	5.17	2%	5.2%	38%	50.8%	6.98	7.55	NA	5.8%
Northern	2.36	2.52	5.73	11.35	2.21	7.00	2.42	9.33	2.6%	9%	45.6%	47.4%	7.89	8.02	NA	23.8%
N. Western	2.64	2.59	2.73	6.85	1.18	3.72	1.45	5.79	2.8%	9.4%	35.2%	69	6.93	8.68	NA	17.8%
Western	1.01	2.30	2.34	7.33	1.24	5.03	2.54	8.18	3.8%	16.8%	21%	68.6%	4.30	7.93	NA	8.6%
Overall Mean	2.06	2.38	4.74	9.83	1.89	5.74	2.46	7.74	3.2%	10.8%	35.8%	58.6%	6.75	8.30	#DIV/0!	17.6%
Total possible	3		100		100		56		5		5		20		5	

Key: BL=Baseline and ML=Midline

A synthesis analysis of both Figure 1 and Table 6 show that Western Province has shown improvement. At baseline, mean scores for Western Province were low in four out of seven subtasks (orientation to print, letter sounds, listening comprehension and English vocabulary). The midline results indicates that the Western Province mostly came out number four of the six provinces and indeed, in one subtask (reading comprehension), it had a high mean. Muchinga Province had low scores in five out of 8 subtasks (i.e. orientation to print, oral reading fluency, reading comprehension, English vocabulary and English listening comprehension). In North Western Province, mean scores were in low in two subtasks (letter sounds and non-word reading). The Eastern and Northern Provinces were found to be consistent in their performance pattern. Midline survey results do not show significant variation from the baseline, with the exception of the Northern Province's low score in listening comprehension.

4.1.3. Analysis by subtasks

Subtask 1: Orientation to Print

This subtask was derived from Marie Clay's (1993) concepts about print assessments. The three items are: 1) where the learner would begin reading; 2) which direction the learner would read; 3) when the learner gets to the end of the line- where would s\he begin to read from. However, print awareness appears to have little ability to predict later reading skills (Paris & Paris, 2006). In conformity to the preceding statement, midline results show that the average score of correct responses increased to 2.42 (88.4%) from 1.96 (74.8%) at baseline. The Kiikaonde language recorded the highest score (2.59) while the lowest was recorded by the Icibemba language (2.22) correct responses out of the total of three. This subtask was not a problem for many learners. Results show that the majority are improving their skills, thereby laying a foundation for development of reading skills. In this task, boys performed better than girls at 2.46 and 2.37 correct responses respectively.

Subtask 2: Letter Sound Knowledge

The letter sound subtask measures learners' ability to sound individual letters in their language of official instruction. Learners were tested whether they know specific letter sounds relevant for blending and syllable formation which result in word reading. It's the most basic skill that learners must acquire before they can move up the ladder to master skills like decoding, fluency and comprehension. As noted above, the highest and lowest average correct scores per minute were recorded in Chinyanja (12.07) and Kiikaonde (6.85) languages respectively. The overall mean score of 9.20 letters sounded correctly per minute is an improvement from the baseline score of 3.95, but it is still below the minimum letter sound knowledge score of 10 alphabetic letters according to the Colorado Department of Education, Research and Evaluation (Hirsch, 2003). Sex disaggregation analyses show that boys marginally out performed girls with 9.25 against 9.15 correct letters per minute.

Subtask 3: Non-Word Reading

In this subtask, learners were examined on their ability to decode meaningless words they are not familiar with. Non-word reading, also called invented or meaningless/non-sense words, is a measure of decoding ability and is designed to avoid the problem of sight recognition of words. Many children in the early grade learn to memorize or recognize a broad range of “sight” words (words primary school learners should recognize on sight, as many of these words are not easy to sound out and thus must be memorized). Exhaustion of this sight-word vocabulary at around age 10 has been associated with the “4th grade slump” in the United States (Hirsch, 2003). In Table 6, learners in Chinyanja speaking regions could only decode an average of 2.29 words while their counterparts in Ibibemba, Kiiikaonde and Silozi decoded 6.39, 3.72 and 5.03 correct words per minute respectively. Across all the provinces, non-word reading improved from 1.56 at baseline to 4.35 correct words per minute out of a possible total of 40 words for Chinyanja, 47 for Ibibemba, 56 words for Kiiikaonde and 32 words for Silozi. With respect to sex, boys performed better at 5.40 correct words per minute compared to their female counterparts with an average score of 4.72 words.

Subtask 4: Oral Reading Passage or Fluency

This subtask is a critical component of assessing literacy skills. Oral reading fluency is a measure of overall reading competency. It is the ability to translate letters into sounds, unify sounds into words, process connections, relate text to meaning, and make inferences to fill in missing information (Hasbrouck & Tindal, 2006). Because oral reading fluency captures this complex process, it is used as a performance measurement yardstick for overall reading skills. From Table 6 above, the average performance of learners across four languages increased from 2.16 to 7.26 correct words per minute. The highest mean score was for Silozi (8.18) language followed by Ibibemba (7.77), Chinyanja (7.31) and Kiiikaonde (5.79). With regards to sex, boys performed better than girls with an average score of 7.86 correct words per minute compared to 6.68 for girls.

In all languages, results show better performance at midline than at baseline. It was observed that differences between baseline and midline scores are substantial, but they still fall short of national and international standards. In their journal article, *Measuring Early Literacy Skills: A Latent Variable Investigation of the Phonological Awareness Literacy Screening for Preschool*, Townsend & Konold (2010) suggested that a child must read fast enough in English; at least 60 words per minute, or correctly answer 67 percent of the questions in order to understand the text. In Zambia, the 2014 MESVTEE guideline (*MESVTEE Reading Performance Level Descriptors (PLDs) for Grades 1-4. (2014) Pp 20 & 34*), indicate that a grade two learner should be able to read an average of 25 correct words per minute across all languages. When this context is considered, the RTS midline results show a below average performance of expected standards.

Subtask 5: Reading Comprehension

This subtask measures learners’ ability to read and understand the story and be able to remember what they have read about in the story. Learners were asked questions about the story and they gave responses by remembering what was in the story. In Table 6, the average mean score increased from 0.15 at baseline to 0.57 at midline out of possible total of 5 test questions. The result represents a percentage change of 280% between the two time periods. The percentage of learners who did not get a zero score improved from 8.9% at baseline to 27.02% at Midline. With regards to sex disaggregation, boys performed better than girls at 0.62 compared to 0.53 respectively. Both baseline and midline results revealed that this is the most problematic subtask with zero scores of 94.44% at baseline and 78.41% at midline.

Subtask 6: Listening Comprehension

For this subtask, assessors read out a short story to learners before asking them questions based on what they heard. This was purely a listening task. The listening comprehension subtask generally assesses a range of language and cognitive skills such as attention, vocabulary knowledge, comprehension strategies, processing of oral language and generation of appropriate replies. Results showed that many learners had

high scores on this task, improving from an average score of 1.66 correct responses at baseline to 3.15 at midline. This represents a performance change of 89.76%. The overall performance by sex shows that boys scored a higher mean of 3.22 compared to 3.08 for girls. The number of learners without zero scores improved from 79.70% at baseline to 96.73% at midline. It means that the situation improved from desirable to outstanding performance levels as prescribed in MESVTEE’s Performance Level Descriptors (PLDs).

Subtask 7: English Vocabulary

The English vocabulary subtask measures learners’ ability to understand basic English words and follow instructions. The first part under English vocabulary involved learners showing body parts that were mentioned in English. The second part required learners to show items/objects that were mentioned by the assessor while in perform psychomotor activities of placing items/objects following instructions spoken in English such as put the pencil; “on the paper; next to the paper; behind you; under the paper; in front of you; to the right of you.”

Similar to listening comprehension, learners performed reasonably well in this task with average scores improving from 6.14 (Below Minimum) to 8.39 (Minimum) correct responses from a total of twenty possible marks. Even though the mean score is still below half, it should be noted that the number of learners without zero scores improved from 74.60% at baseline to 99.67% at midline. This result indicates that more learners are improving and grasping basic vocabulary skills relevant for their learning. Boys’ performance was slightly higher than that of girls with average scores of 8.49 and 8.28 respectively. Such performance could be attributed to the nature of English words selected. Naming body parts in English is common even among illiterate people. The second part utilized familiar objects such as pencil, shoes, desk, rubber and paper used by learners as they start school. Similarly, floor is a common word to learners because they are often told in English by the teachers to sweep the floor or to seat on the floor.

Subtask 8: English listening comprehension

This subtask was not tested at baseline but was included at midline following a request by MESVTEE through ECZ. Its inclusion is premised on the argument that some learners may perform poorly on listening comprehension subtask in local language because they use English at home. To compare learners listening comprehension in local languages and English, MESVTEE advised that EGRA listening comprehension be administered in both local and English languages. Like in Subtask 6, learners were assessed on their ability to attentively listen to a story read out in English and generate appropriate responses to posed questions. Both the story and questions were read out aloud in English but the learner was free to respond in either English or their familiar local language. From the results, the average score is 0.80 correct responses and is much lower than 3.15 for listening comprehension in local language. In addition, English listening comprehension had more learners with zero scores (64.98%) compared to 3.27% for listening comprehension in local languages. The wide gap between scores for the two subtasks may suggest that it is more advantageous to teach in local language.

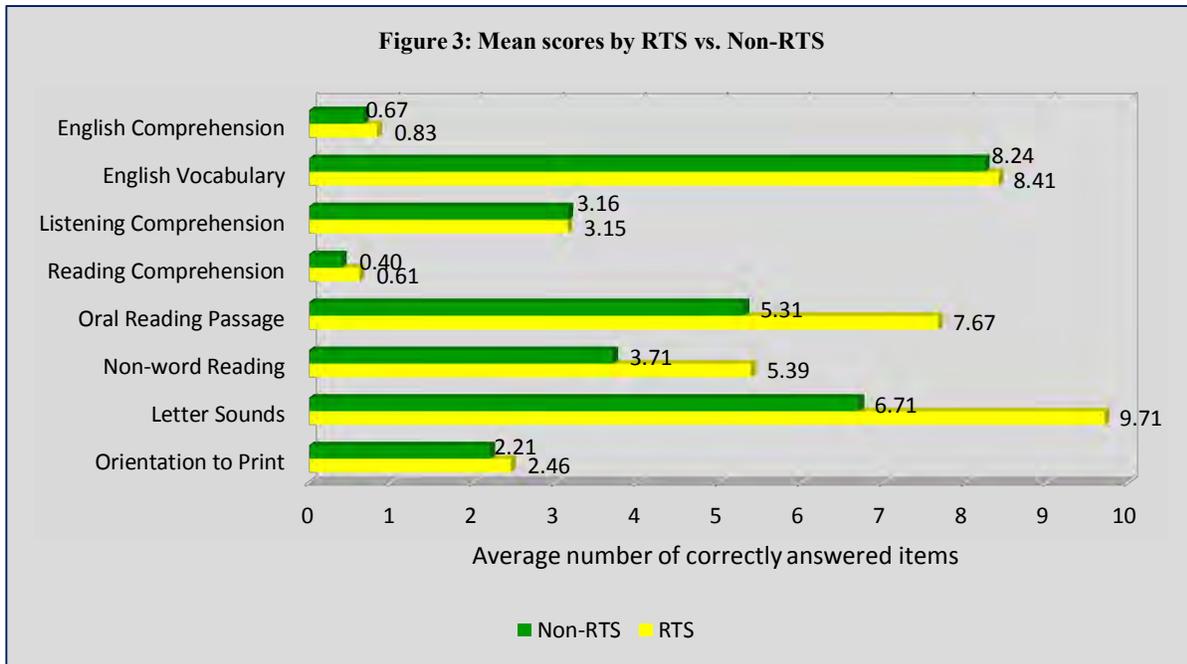
4.1.4. Analysis by RTS vs. Non-RTS districts

In order to compare results and see the impact of project interventions on learner performance, RTS collected data from non-RTS districts. A comparative analysis of reading performance between RTS and non-RTS schools was conducted. Even though results are disaggregated by RTS and non-RTS groups, readers should bear in mind that many RTS interventions have already had national spillover effect because some districts and provinces took initiative to implement RTS interventions in non-RTS target schools. Further, MESVTEE has rolled the Primary Literacy Program (PLP) to all primary schools in Zambia.

However, it must also be noted that intervention districts (RTS districts) received a full package of intended set of project activities which is not the case for non-RTS districts. The packages comprises training in PLP, in local resource material development, in education leadership and management, in use of assessments, in guidance and counselling and RTS schools also received regular support visits necessary for on-site coaching. Further RTS schools received reading materials in form of Reading Tools in a Box (RTB) which

is not the case for non-RTS districts. Based on this assertion, intervention districts were expected to demonstrate better performance than non-RTS districts.

Therefore, interpretation of results has been done within this context so that outcomes are not over or under attributed to RTS activities. Notwithstanding survey contextual limitations, results indicate that RTS districts are doing better than non-RTS in all subtasks except listening comprehension in local languages where both RTS and non-RTS districts performance was almost the same (average scores of 3.15 and 3.16 for RTS and non-RTS districts respectively). As presented in Figure 2 below, the RTS districts demonstrated stronger performance in three most important foundation subtasks: letter sounds, non-word reading and oral reading fluency.



The above results are significant and are therefore an indirect demonstration of RTS’s contribution to the positive changes observed in primary schools. A T-Test of Independent Samples on oral reading passage revealed that the mean differences are statistically significant⁸. Results show that about 26% of all variations in learners’ oral reading ability can be explained by randomization type (RTS or Non-RTS districts). Against this background, it is fair to state that RTS interventions have had visible impact on learner performance in reading in its target schools.

⁸ t=6.6, df=1114, P=.000 with effect size (Cohen’s d) of 0.262.

4.2 Teacher Performance

Just like at baseline, teacher performance was evaluated in two parts: classroom observation of a literacy class in session and a one-on-one interview immediately after the class observation. This approach was consistent with global literature, which emphasizes that the classroom context exerts influence over learner development and educational achievement arising from teachers' direct contact and instruction on a daily basis. The classroom context becomes most evident through aspects of teacher education and development, teacher characteristics and attitudes, classroom characteristics (for example, class size, and teacher-to-learner ratio), instructional materials and technology, instructional strategies and activities, and assessment practices (Mullis *et al.* 2009). Therefore, the teacher has a significant impact on children's ability to learn not just in early grades but throughout their education process.

4.2.1 Teacher Demographic Information

The survey found that the sex proportions have not changed much from those presented at baseline. For example, there were 56.3% of female teachers at midline compared to the baseline result of 56.1%. Similarly, male teachers accounted for 43.9% and 43.7% for baseline and midline respectively. Though the difference may not be significant, the survey shows a downward trend for female teachers while the expectation is that their numbers should be going up if Zambia is to reach the 50% male: 50% female ideal proportion. As for age, an average teacher is 33 years, up from 31 years at baseline. The youngest teacher was 21 while the oldest was 54 years old same as at baseline. The median age was 32 years at midline compared to 31 years at baseline. The median age means that half of the teachers were aged 32 years and above. The mode age was 34 years compared to 30 years at baseline. This means that most teachers were aged 34 years at midline and 30 years old at baseline. Midline data further showed that all teachers interviewed had been teaching for an average of 6.4 years up from 5.2 years at baseline. When broken down by province, Luapula had the longest serving teachers, with an average of 7.2 years while Northern had the lowest average of 4.8 years. Similar to the findings at baseline (75.0%), midline results (74.7%) still show that three quarters of teachers are college graduates. Teachers with only primary education constituted 4.5% while those with university qualification and other were 0.8% and 3.4% respectively. Teachers grouped in the *other* qualification were largely untrained teachers and/or volunteers.

4.2.2 Classroom Environment

On the day of assessment, the average attendance in all classes observed was 18 girls and 17 boys against an average registered number of 27 learners for both girls and boys, with largest class having 99 learners on the register. This gives an average absenteeism rate of 34% girls and 35% boys. These rates are slightly higher than those computed from routine monitoring data ranging between 25-30%.

Overall, the midline results showed that the classroom environment is a bit more conducive for learning than it was at baseline. For example, 99.2% of all classrooms had a chalkboard compared to 97.8% recorded at baseline, while 94.3% of learners had enough seats compared to 87.9% at baseline. In addition, the results show notable improvements in learners' ability to see what was written on the chalkboard as the scores increased from 83% at baseline to 96.6% at midline. Improvements were also noted in learners' ability to clearly hear what the teacher was saying in class as the result increased from 84.7% to 97.7% at baseline and midline respectively.

Table 8: Summary Observations on Classroom Environment

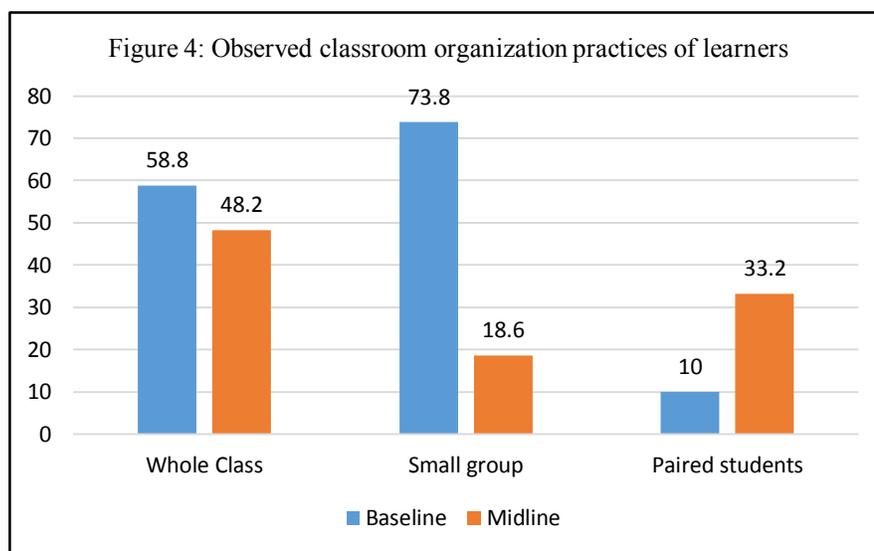
Characteristics	Baseline %	Midline %
Availability of chalkboard	97.8	99.2
Seats for students	87.9	94.3
Students can see what is written on the chalkboard clearly	83	96.6
Student can hear clearly what the teacher says	84.7	97.7

There were also notable improvements with regards to availability of teaching and learning materials. At baseline, 75.8% of learners had access to exercise books/slates and 68.2% had pens/pencils while at midline,

87% and 85% of learners had books and pencils respectively. On the other hand, there was a slight drop from 54% to 51% at baseline and midline respectively in the proportion of teachers with teaching and learning aids displayed in classes. Of all teaching and learning aids observed, 49% were considered appropriate by assessors compared to a baseline value of 47.9%. There was a significant slump on the proportion of classrooms where learners' work was displayed, from 28.3% at baseline to 14.7% at midline. Reasons for this drop are unclear but one probable factor is that classes may not display learners' work due to the fact that classrooms are shared with other grades. Based on results presented, it can be concluded that classroom environment is moderately favorable for effective teaching and learning.

4.2.3 Classroom Organization & Management

According to midline survey, most teachers still organize classes or learners in small groups when teaching even though the midline figure is lower than baseline. The drop from 73.8% to 18.6% may be due to policy changes. For example, Primary Reading Program (PRP) emphasized on grouping learners according to their learning ability. However, Primary Literacy Program (PLP) discourages ability grouping. Therefore some



teachers failed to report that they use small groups because they didn't want to be perceived as using a discarded system. Also notable from results was the fact that there is less emphasis on whole class approach as reflected in the reduction from 58.8% at baseline to 48.2% at midline. This shift reflects a movement away from teacher centered to more learner centered approaches. In addition, teachers are increasingly pairing learners on different tasks in the classroom with a view to maximizing learning among peers as noted from results of 10% and 33.2% at baseline and midline respectively. Figure 4 has more details.

4.2.4 Instructional Content

There is evidence indicating improved instructional practices. Survey assessors observed that teachers' practices about instructional content changed significantly as reflected in Table 9. Teachers are putting more emphasis on guiding learners on how to identify differences and similarities of sounds (86%), up from 42.6% at baseline. Other related tasks with high scores were pronouncing letter sounds which increased from 56.3% to 83.7% while blending letters improved from 41.1% to 81.4% at baseline and midline respectively. Even though performance improved from baseline, the following tasks scored low marks with creation of learners' own stories being the least at 32.8%, followed by speaking about their own lives at 38% and reading printed material at 49.6%. All these tasks relate to actual reading fluency which is still low even in EGRA scores.

Table 9: Teacher Practices on Instructional Content

Instructional Content Description	Observed practices (%)	
	Baseline	Midline
Teacher guides learners to Identify differences and similarities of sounds	42.6	86
Teacher guides learners to Pronounce sounds of letters	56.3	83.7
Teacher guides learners to Write letters	46.0	77.8
Teacher guides learners to Associate words with letters	52.6	66.1
Teacher guides learners to Discuss meaning of vocabulary words	41.1	63.6
Teacher guides learners to Blend letter-sounds to form syllables and words	41.5	81.4
Teacher guides learners to Read sentences	56.3	65.1
Teacher guides learners to Read printed material or book	45.1	49.6
Teacher guides learners to Answer questions or draw picture about meaning of text	47.2	59.4
Teacher guides learners to Write words or sentences as dictated	31.4	52.7
Teacher guides learners to Create or write own texts (sentence or story)	19.1	32.8
Teacher guides learners to Speak about own lives, events or stories	16.8	38

4.2.5 Time on Reading and Reading Knowledge

Midline results show an ideal scenario with minimal differences from baseline. For example, 90.5% of all teachers have scheduled time for teaching reading which lasts between 30-60 minutes per session depending on the topic being covered. Exactly the same score of 90.5% was recorded at baseline. Further, most teachers (86.3%) stick to their schedule of teaching reading and 70% of them said they teach reading everyday compared to 56.1% at baseline. With regards to developing daily lesson plans, midline results show that there was no much change from baseline value of 81.6% as it slightly dropped to 81.3%. However, the number of teachers who produced proof of lesson plans had marginally improved from 74.0% at baseline to 75.3% at midline. For those who did not have lesson plan, some of the reasons given were that it takes too much time to prepare while others said they were not given a lesson plan template and some said they do not know how to prepare a plan. Generally, results indicate that there is sufficient time allocated for reading activities in schools.

On teachers' specific knowledge in how to teach sounds, there was slight reduction in knowledge levels of letter names (*Ee*) from 89.5% at baseline to 85.0% at midline. Even though teachers' knowledge on letter names was relatively high, their knowledge on letters sounds was lower at baseline than at midline. For example, while 89.5% of teachers knew the correct letter name for *Ee* only 81.2% knew the correct letter sound at baseline, the reverse happened at midline. Thus, 85.0% knew letter names but more teachers (89.2%) knew about letter sounds. Their performance on identifying letter names and sounds for *sh* and *mb* was improved from 91.1% to 93.2% and from 75.7% to 85.8% at baseline and midline respectively. When asked why teachers should teach sounds to learners, results show an increase from 89.7% at baseline to 96.1% at midline of teachers who said that it was important because children need to learn how to sound and/or decode letters in order for them to read words. Regarding teacher-centered approach, 95.5% of teachers know what it is compared to 86.4% at baseline. At baseline 86.8% correctly explained what the teacher-centered approach was compared to 87.6% at the midline. Overall, results between the two surveys indicates a positive trend concerning teachers' knowledge levels of teaching reading and allocating time for reading.

4.2.6 Class Activities

As illustrated in Table 10 below, midline results indicates an array of activities and they show a positive outlook on teachers' improving pedagogical skills. The results are also consistent with those on classroom organization where more teachers indicated that they mostly organize learners using interactive techniques. Out of 10 observed classroom activities, only two showed a downward trend at midline. For example, learner recitation activities in class improved from 66.2% to 92.2%, listening to teacher reading aloud improved from 82.8% to 88.4% and answering teacher's questions improved from 79.7% to 85.3% at

baseline and midline surveys respectively. The only negative scores were recorded on choral reading (from 69.6% to 61.8%) and learner group projects (from 23.7% to 13.7%) at baseline and midline respectively. The observed classroom activities reflect an interactive engagement approach between the teacher and learners in the teaching learning process.

Table 10: Observed classroom activities (%)

Description of class activity	Baseline	Midline
Most students are Listening to teacher read out loud	82.8	88.4
Most students are Reading out loud together (choral reading)	69.6	61.8
Most students are Reading out loud to another student (paired reading)	20.2	28.7
Most students are Reading independently (by him/herself)	43.2	66.7
Most students are Repeating/Recitation	66.2	92.2
Most students are Answering teacher's questions	79.7	85.3
Most students are Writing on blackboard (by students)	50.4	74.9
Most students are Writing on paper, in exercise book or slate (by students)	70.3	62.5
Most students are Working on group projects (by students)	23.7	13.7
Most students are Playing learning games, sketches or songs organized by teacher	31.3	51.4

4.2.7 Teaching Methods

Teachers were assessed on their ability to effectively engage learners using a variety of teaching techniques such introducing a lesson, engaging learners, writing on the board, how a lesson is concluded and other aspects of teaching. Overall, there is a general upward trend about teaching methods when baseline and midline performance is compared. For example, results of observed practices indicate that teachers improved their performance regarding the way they introduce lessons to learners from (84.8% at baseline to 94.8% at midline). On the other hand, results show that there was a downward change in the trend of whether teachers asks learners questions about the lesson and whether teacher praises learners and complements them. However, teachers' criticism of learners went down from 16.2% to 8.3%. Surprisingly, the proportion of teachers beating up learners during class sessions went up to 33.9% from 10.7% at baseline. See details in Table 11.

Table 11: Observed teaching methods (%)

Teacher...	Baseline	Midline	Trend
Introduces lesson by explaining what learners will learn	84.8	94.8	↑
Conducts lesson in local language	84.8	95.6	↑
Reads aloud to learners	82.5	91.0	↑
Demonstrates reading or writing skills	69.0	89.4	↑
Responds to learner questions	33.0	55.3	↑
Provides explanation if learner(s) don't understand	68.8	91.7	↑
Gives classwork for learners to practice	81.6	88.6	↑
Concludes lesson with summary of what was learned	62.5	85.8	↑
Praises or compliments learners	75.1	61.5	↓
Criticizes, scolds or punishes learners	16.2	8.3	↓
Beats learners	10.7	33.9	↑

Table 12: How do you get children to manipulate letters of the alphabet?

Manipulation Type	Baseline	Midline
Arrange letter or word tiles	26.5%	15.8%
Write letter to match sounds	31.4%	36.8%
Play word-sound games	15.6%	58.7%
Rhyme	12.1%	22.6%
Other	14.3%	20.0%

improving teaching techniques.

Teachers have shown improvements in their teaching methods. Actual classroom teaching methods have resulted into positive changes in teaching methods such as reading out stories to learners, listening to learners read stories, frequency of teaching reading. For example, 80.6% of teachers at baseline said that they read stories to learners daily and weekly compared to 91.6% at midline. Table 12 also sheds light about

Further, 79.8% compared to 55% at baseline said they ask learners to read aloud stories in class on a daily basis. The results also show that the commonest frequency of teaching reading is daily which has increased from 42% at baseline to 75.8% at midline.

The commonest method of teaching reading is still sounding out words 47.4% up from 34% at baseline, followed by paired reading which improved from 18.6% to 21.8% at midline. In third ranking is reciting words, which dropped from 19.4% at baseline to 13.2% at midline. Teaching learners to memorize words is the least method of teaching reading and it dropped from 5.6% at baseline to 2.9% at midline. Over half (64.7%) of teachers know a learner is having trouble with reading if that learner cannot sound out words or string words into sentences. At baseline, the score was at 25.3%. According to teachers, the remedy for the children having trouble reading lies in giving extra assignments (72.6% up from 37.4% at baseline), work with learner one-on-one (70.5% up from 33.9% at baseline) and to pair them with a good learner (37.9% up from 13.0% at baseline). When asked about using active learning technique, 76.1% at midline versus 64.7% at baseline of teachers reported that they use it frequently and 83.2% (compared to 73.8% at baseline) of them satisfactorily explained what active learning techniques was.

4.2.8 Assessment Practices

Literature indicates that regular systematic assessments lead to improved performance. For example, the 2008 National Assessment Survey Report showed that learners in classes where teachers used various methods of assessing learners during lessons, such as field work, project, demonstration, discussion, games, role plays, drama and research tended to perform better in English and Life skills.

Midline Survey results show an improvement in teacher assessment practices for the past two years. The biggest change of all assessment practices was in giving quiz or tests which improved from 17.8% at baseline to 52.2% at midline, representing a percentage change of 193%. The assessment practice with the least change was listening to individual learners read aloud which increased by less than 2% from 58.8% at baseline to 60.2% at midline. See Table 13 below. The lowest score was assessing using a reading assessment tool at 26.6% which is just about a quarter of all teachers observed. This may suggest that there is still a tilt towards more informal assessment practices than formalized and verifiable school based assessment techniques.

The above view is similar to views in, The World Bank's Systems Approach for Better Education Results (SABER) 2009 Country Report on Zambia's Classroom Assessment which concluded that "the classroom assessment in Zambia is predominantly norm-referenced and not standards-based". The report added that "classroom assessment activities tend to focus only on information recall". Further it stressed that "classroom assessment is mainly used as an administrative or control tool rather than as a pedagogical resource".

Table 13: Observed assessment practice in class (%)

Teacher assesses learners by...	Baseline	Midline	Trend
Asking questions during lessons	81.5	91.5	↑
Monitoring learners as they work to check understanding	75.8	87.6	↑
Observing learner activities	69.7	81.7	↑
Listening to individual learners read aloud	58.8	60.2	↑
Using a reading assessment tool	23.4	26.6	↑
Giving quiz or tests	17.8	52.2	↑

Compared to baseline, many teachers conduct systematic assessments and keep track of learners' progress in learning to read with a view to improving learning outcomes. At baseline, 70.3% teachers said they keep track of learners' performance while at midline, the figure rose to 83.9%. Among those who said they keep track of learner performance, there were more teachers that provided proof of assessment records at midline than at baseline, with 65.5% and 47.8% respectively. The most common method of assessment involved teachers asking learners to say what they just read (70.8%), followed by monitoring learners as they work

(57.4) and checking exercise books (51.6%). Midline results also show that teachers improved in the way they keep records of structured assessments (60% at baseline compared to 72.9% at midline) and on informal student assessments, performance improved from 48% to 60.8% at baseline and midline respectively.

Teachers who fail to keep records said there is too much work overload especially where the class was too large as it takes a lot of time to mark. Some teachers noted absenteeism as a key factor in administering assessment. Thus, where absenteeism is high, teachers fail to conduct assessments because many learners would miss out. When asked if the school had a learner performance assessment plan, 75.8% teacher at midline compared to 42.3% at baseline said ‘yes’ and 60.8% of them compared to 40.8% at baseline were correctly described it. On average, 65.7% of teachers use proficiency levels⁹ to classify learners’ performance. Collectively, 32.5% of all teachers were for the view that their learners perform below minimum standards. In general, it was noted that there were improvements in the manner teachers conduct school-based assessments.

4.2.9 Teaching and Learning Materials

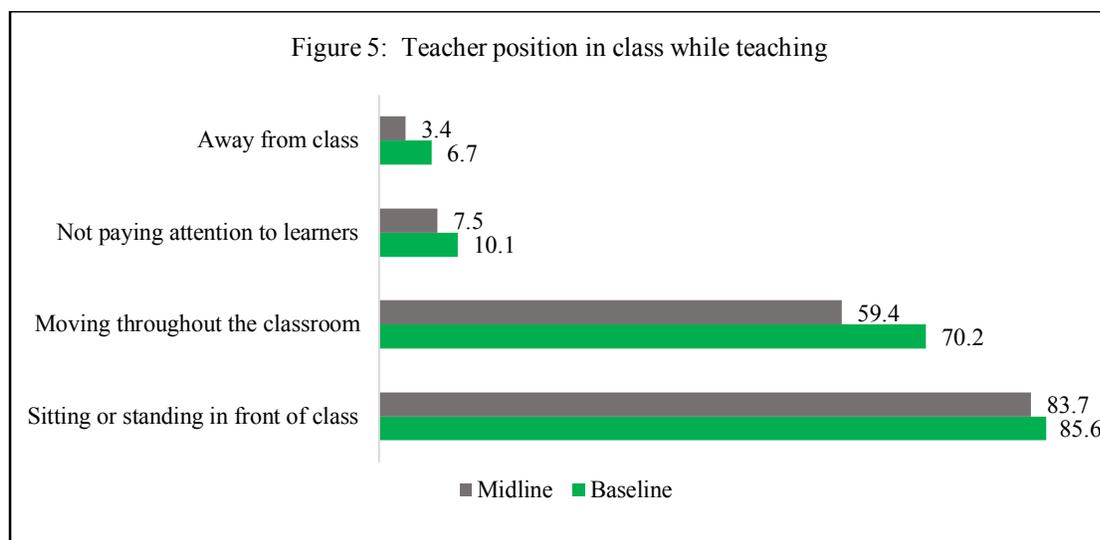
Observation of the overall school environment provides evidence which shows that schools are becoming more resourceful. Results indicate that there were more teaching and learning materials at midline than at baseline. The survey results further show that the top three most commonly available teaching and learning materials are: chalk board (85.3% down from 90.6% at baseline), story books (59.2% up from 47.0% at baseline) and teacher textbook (58.9% down from 69.7% at baseline). On the other hand, the scarcest teaching and learning resources were worksheets (up from 16.1% to 18.9% at midline), supplementary reading resources (up from 24.2% to 29.7% at midline) and learner exercise books/slates (down from 65.2% to 38.8% at midline). Other resources such as posters, flashcards and manipulatives were at about 40% availability. The availability of teaching and learning materials increased from 79% at baseline to 97.4% at midline.

The proportion of teachers who showed examples of self-made aides increased from 72.6% at baseline to 85.7% at midline. The bulk of self-made aids were story books (74.3%), followed by manipulatives (real objectives) at 37% while the least was posters/charts at 4.5%. Some teachers indicated that they do not prepare teaching aids because of the following: lack of materials (47.6% up from 36.1% at baseline), already have enough (11.1%), takes too much time (9.3%) and I don’t know how to make own aids (3.2%).

4.2.10 Teacher Position

Teacher position and movement in class is cardinal for capturing learners’ attention and ensuring that learning takes place. Results show that there were less teachers who just sit or stand in front of the class. Performance improved from 85.6% to 83.3% at baseline and midline respectively. The downward trend with sitting or standing in front of class is a positive change as effective teachers are expected to move around in the class. Many observed aspects showed a desired downward trend. See Figure 5 below for details.

⁹ Below Minimum 0-39%, Minimum 40-59%, Desirable 60-79% and Outstanding 80-100%. These Proficiency Levels (PLs) are defined in the Performance Learner Descriptors (PLDs)

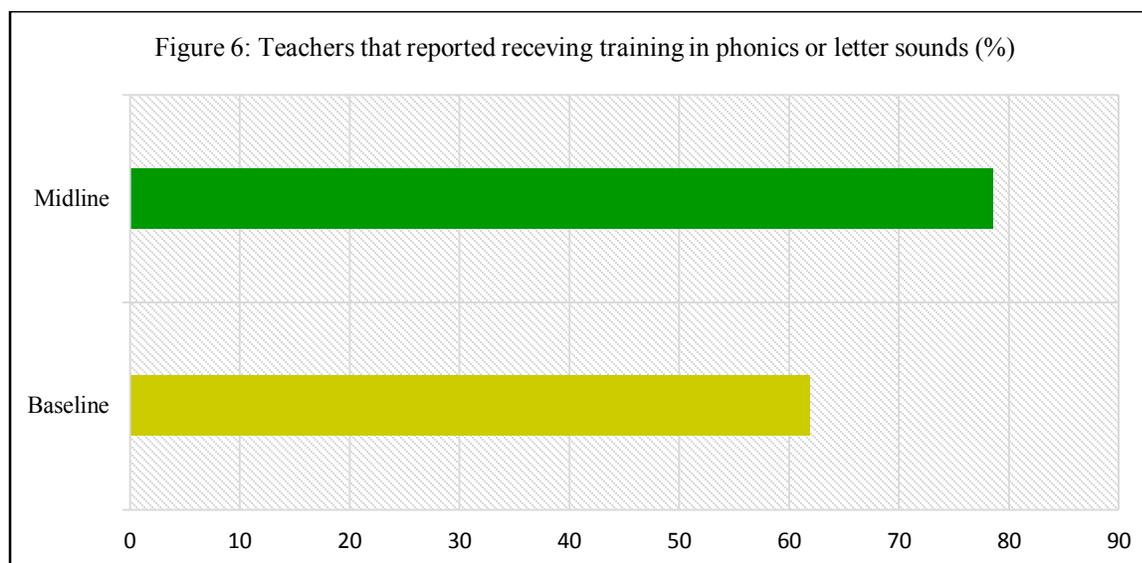


4.2.11 Teacher Monitoring and Support

School head teachers are instructional leaders and should continuously coach their teachers to ensure quality in teaching and learning. At midline, more teachers (92.3%) than at baseline (81.0%) reported having received guidance and mentorship from school head teachers. For example, 84.9% of all teachers were observed teaching a lesson. Results indicate increased involvement from zone officials with 61.1% of them providing classroom observations compared to 28.3% of school head teachers. This shows that zonal head teachers are giving support to schools other than their own particularly after RTS provided scripted guidelines for coaching and mentoring. This approach is contributing to teachers' improving performance in many schools and consequently better performance of learners. More teachers had their lessons observed at midline (84.9% compared to 60.8% at baseline). All observations in the school year were followed by discussions with observers at the end of the lesson and 83.3% teachers at midline compared to 82.5% at baseline said feedback was useful. There are a lot more regular class observations at midline than at baseline. Based on results, it can be stated that there were noticeable improvements in the way the school leadership and zone head teachers support teachers as evidenced by increased learner scores at midline.

4.2.12 Teacher Continuous Professional Development (CPD)

Teacher CPD is about providing a conducive environment for ongoing learning and skills enhancement. In the survey, teachers were different questions about learning opportunities with the system. Similar to results in preceding sections, improved performance was recorded in school level professional development. For example, the proportion of teachers reported having received support and training in how to teach reading using phonics/letter sounds increased from 61.9% at baseline to 78.6% at midline. Figure 6 has details. In addition, over half (57.9%) of the teachers received their training in 2013 suggestive of RTS's interventions.



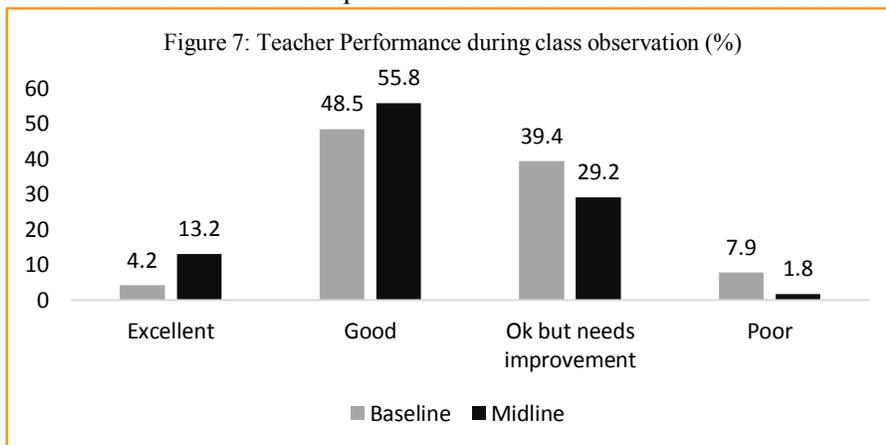
Improved performance was also recorded in respect to holding organized Teacher Group Meetings (TGMs) as it increased from 83.9% at baseline to 93.9% at midline. Teachers reported that they mostly hold TGMs on a weekly basis (38.4% slightly up from 35.7% baseline). Equally, 56.3% at midline compared to 46% of teachers said there had been scheduled time for teachers to exchange ideas, share materials/plan lessons together. The TGMs are organized by school based officials (57.1% up from 47% at baseline) who include School In-service Coordinators (SICs), Head teachers, Deputy Heads and Senior Teachers and teachers. Zone and district officials accounted for 14.4% up from 4.4% at baseline. During TGMs, discussions centered on; teaching methods (87.6% up from 33.2% at baseline), subject content (53.2% up from 22.5% at baseline), and classroom management (45.2% up from 15.4% at baseline). Both school-based and zonal TGMs are being continuously strengthened by RTS and teachers think that they are helpful (65.1%) because they help them learn from each other (36.6% up from 22.7% at baseline). Results indicate that CPD is improving as more teachers participate with purpose and intent to sharing experiences relevant to teaching and learning.

4.2.13 Teacher Interaction with Parents

Relationships among teachers and with parents are vital to effective teaching and better performance of learners. Survey results reveal that there is increased interaction between teachers and parents from 81.4% at baseline to 92.3% at midline. Thus, more teachers reported that they meet parents to discuss students' performance mostly on termly basis (56.6% up from 39.8% at baseline). Compared to baseline score of 61.2%, midline results show that 74.6% of all teachers prepare learner progress reports which they send to parents/guardians. Overall, 70.1% of teachers said they mostly send progress reports on termly basis compared to only 3.7% who reported sending reports to parents on monthly basis. Survey results also show that 66.4% of parents interviewed have become more proactive in learner performance management processes compared to 55.9% at baseline. Parents have started to ask teachers to meet to discuss about their children. With respect to whom to consult when a learner has a problem, more teachers said they consult other teachers 69.4% up from 12.1% at baseline. Others consulted by teachers were head teacher 29.9% down from 51.6% at baseline, other school leaders (senior teachers/PTA/Deputy Head) 47.0% up from 18.4% at baseline while consultation from G&C teacher increased from 17.9% at baseline to 31.3% at midline. The results demonstrate a growing interaction and partnership between teachers and parents given that more parents are demanding accountability from teachers through reports and regular meetings. Ultimately, the result shows an emergence of shared participatory leadership in schools.

4.2.14 Observer Reflections

As was at baseline, assessors were required to give their overall impressions of the lesson through a series of questions after classroom observation. Of all observed teachers, 68.7% at midline compared to 53.2% at baseline, taught the same lesson as indicated in the lesson plan. This shows an increased adherence to the lesson plan. Similarly, 70.3% (midline) compared to 51.7% (baseline) of class activities and discussion followed the lesson plan. While only 55.6% of teachers at baseline had adequately prepared teaching and learning aids for the lesson, 77.8% of the teachers at midline prepare teaching and learning aids for their planned lessons.



Regarding the use of language in classrooms, 88.9% of teachers at midline said they teach in local language all the time compared to 69.7% at baseline. Further, there was no much change in assessors' views about how teachers used interactive learning techniques with scores at midline and baseline. Overall, assessors noted an improved atmosphere in the class where teachers engaged learners in activities. For example, 71.8% of teachers were courteous to learners during class and spent about 50-70% of their time doing classroom activities together or in groups as opposed to lecturing.

Teaching was also inclusive because teachers' ensured participation of both boys and girls in class activities. Observers also noted positive interactions among learners and teachers. The teachers also exercised positive discipline which helped learners to focus on given tasks. The combined assessors' rating of teacher performance in class improved from 48.5% at baseline to 55.8% at midline for teachers rated as good. Midline results also show more teachers were rated excellent than baseline with scores of 13.2% and 4.2% respectively. See figure 7 above for details.

4.3 Head Teacher Performance

The RTS Research Report on Effective Head Teachers indicated that “head teachers in high performing schools tend to display openness towards new ideas while maintaining an authoritative approach to leadership” (Jacob et.al 2014, p. 9). This goes to show that strong leadership by the head teacher in the day-to-day management and oversight of school programs is critical for creating an environment suitable for improved learner performance. Many school effectiveness models consider the head teacher as the central part of the process of teaching and learning improvement. Therefore head teachers are necessary in integrating effective teaching strategies and parental and community support. Like at baseline, this midline survey captured issues around head teacher’s leadership such as: pedagogical (instructional) leadership with a focus on reading, school management, guidance and counseling, continuous professional development, community support, and external monitoring support from provincial and district officials.

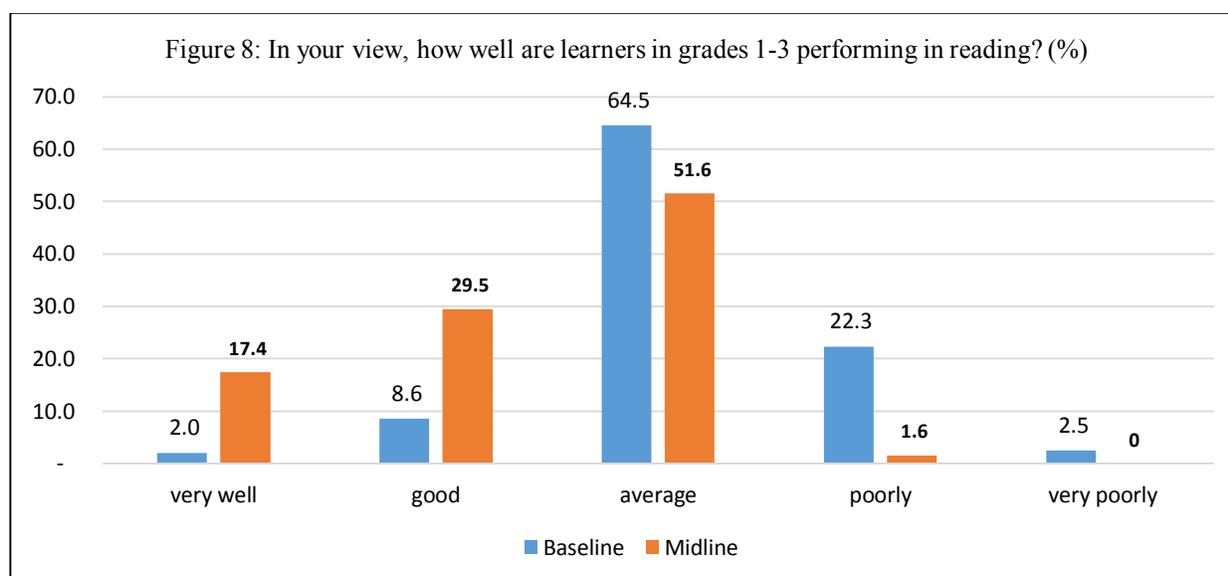
4.3.1 Head Teacher Demographic Information

There is no much change with regard to the gender mix of head teachers. At baseline, 75.6% of all head teachers were male while at midline, the proportion increased to 77.4%. This may raise a concern that there might be some gender related issues concerning decision making processes at school level. This result shows that despite having more female teachers (baseline = 56.1% vs. 43.9% & midline = 56.3% vs 43.7%) in lower grades, they are a minority in school leadership with only 22.6% females in leadership down from 24.4% at baseline. On average, head teachers have been in their current leadership positions for 3.7 years (3.6 years at baseline). On the other hand, all head teachers have an average teaching experience of 17.9 (18.5 years at baseline). The mode duration of being a head teacher is 1 year which means that the majority of head teachers do not have sufficient experience as leaders. With respect to which subjects are taught by head teachers, results show that 58.4% of head teachers at midline compared to 46% at baseline teach all subjects. In addition, 84.2% have taught grade 1 or 2 at some point. This may still indicate substantial involvement in classroom activities which leaves them with little time for strategic decisions. More head teachers (35.3%) have a Primary Teachers’ Diploma teaching qualifications than Secondary Teachers’ Diploma (31.6%) or Primary Teachers’ Certificate (21.6%). Only 10% hold a university degree.

4.3.2 Focus on Reading

There is substantial involvement and focus on promotion of effective reading by head teachers. For example, almost all head teachers (99.5%) said that literacy is taught as a separate subject for an average period of 60 minutes. This represents a significant change from baseline where only 25% indicated that literacy was taught as a separate subject. Evidence also indicates that teachers mainly use official local language (88.4%) all the time to teach reading as opposed to other local language (11.1%) and English (0.5%). Head teachers mostly think that some teachers do not use official local language to teach reading because they are not trained to teach reading in that language, hence the limitation to use it.

In views of head teachers, the appropriate class to start teaching English is grade 5, which is a departure from their views at baseline when they indicated grade 2. In addition, head teachers monitor reading performance mainly through lesson observation (85.4%), by examining reading test scores (43.8%) and sometimes through sample tests or GALA (32.6%). Responses from nearly all head teachers (99.5%) indicate that teachers should teach letter sounds in order for learners to know how to sound out (decode) letters to read words. To improve reading in schools, head teachers help their teachers to teach better, mostly through discussion during TGMs (75.8%) and lesson observations (66.5%). Compared to baseline, head teachers rated their own knowledge about how to teach early grade reading better at midline. For example, head teachers rating at midline revealed the following: very weak is 0.5% down from 1.5% at baseline, not so good is 1.6% down from 5.6% at baseline, average is 26.3% down from 34.0% at baseline, pretty good is 63.2% up from 48.7%. In general, results show that head teachers are increasingly focusing on promotion of early grade reading in schools. Figure 8, summarizes head teachers’ views on learner performance.



4.3.3 Pedagogical Leadership and School Management/Improvement

There is evidence that school leadership is focused on ensuring quality teaching and learning while retaining strong administrative oversight. All head teachers said it is their responsibility to help teachers teach better in schools and they do it via open communication (78.0% up from 24.1% at baseline) and knowledge (66.3% up from 19.4% at baseline).

Results also show that head teachers are more actively involved in classroom activity monitoring now than at baseline especially with regards to classroom observation and coaching during TGMs. On average, each teacher is observed 4.9 times in a year.

At baseline, 29.6% of head teachers reported that they assess teaching quality through classroom observations while at midline, the figure increased to 88.9%. The frequency of classroom observations ranges from bi-weekly (64.2%) to monthly (21.6%) and termly (11.1%) and 95.3% of topics focused on teaching-learning quality. After classroom observations, head teachers use findings to provide feedback to teachers on their performance. More head teachers were able to produce proof of classroom observations, thus performance improved from 81.2% to 86.3% at baseline and midline respectively.

Some topics for TGMs and staff teacher meetings are derived from class observations discussions with teachers. This demonstrates more involvement of head teachers in teaching and learning processes. Teaching-learning quality is also guaranteed through regular preparation of lesson plans which are reviewed by the head teacher fortnightly. Regarding motivation, 68.9% of head teachers compared to 30% at baseline motivate students by giving positive feedback or praises while providing rewards/resources increased to 91.1% at midline up from 39.8% at baseline.

School management relates to various aspects of school administration particularly those that relate to discipline and promotion of harmonious operations at the school. All unexcused absences or lateness were punished (92.1% at midline up from 90.9% at baseline). The majority (94.2%) of head teachers ensure that teachers are present in classrooms by visiting classes and at the same time head teachers mostly give warning letters (91.6% up from 51.4% at baseline) and record (60.0% up from 30.1% at baseline) all unofficial excuses. Frequently absent learners are mostly dealt with by engaging parents (68.9%) and talking to them directly (65.3%). Regarding allocation of teachers to grades, the commonest criterion is the teacher's knowledge of subject matter and methods at 72.1%. Overall, many schools enforce positive behavior for both learners and teachers.

Collective planning for school improvement is essential for sustainability and ownership. Survey results indicate that the PTA is now more involved in school management processes than they were at baseline. For example, Table 14, shows that setting learner performance targets with PTA members improved from 13.0% at baseline to 21.6%. The survey results also show that schools know their needs and develop plans based on their own needs (77.9% up from 67.7%

Description	Baseline (%)	Midline (%)
Head teacher alone	2.1	2.6
Head teacher and teachers	77.1	72.1
Head teacher and PTA	13.0	21.6
Higher education authorities	2.1	1.1
Other	5.7	2.6
Total	100.0	100.0

at baseline). The process of developing targets and operational plans is not in a vacuum but guided by reference materials and prior analysis of learner performance in previous years. For example, 62.6% of head teachers said that development of school improvement plans is informed by the Grade 2 Literacy Progress Report (G2LPR). Both school authorities and PTA or parents in general are increasingly taking interest in learner performance as can be seen in their joint planning and implementation efforts.

4.3.4 Continuous Professional Development (CPD) and External Monitoring & Support

Continuous professional development has been heightened in all RTS supported districts and results of the midline attest the improvement. For example, the proportion of head teachers trained in their role on how to carry out their duties as head teachers increased from 31.5% at baseline to 64.2% at midline. Most of the capacity building activities were received at zone or district level (37.9%) as opposed to college and university at 18.9% and 4.2% respectively. With regards to specific training in how to teach reading using phonics or letter sounds, 91.1% of head teachers at midline said they had received training compared to 81.7% at baseline. The majority (54.0% and 20.0%) received training in 2013 and 2014 respectively). Survey results show that on average, a head teacher attends 3 zonal CPD activities in a school year which they mostly attend termly. According to head teachers, zonal CPD activities are helpful to a large extent for both teachers and head teachers (70.5% up from 52.7% at baseline). The CPD activities mostly help head teachers to learn new methods (71.6%), learn about management methods (58.9) and learn about new administrative procedures (56.8%).

On external visits and support, survey results indicate that each school in RTS targeted provinces is visited 4 times (3 times at baseline) by a district or provincial official in a school year compared to 2 visits from a zone official. Head teachers described the visits as very useful as they contributed to improving quality of teaching and learning in schools. With regard to purposes of visits, zone officials focus more on school in-service monitoring (SIMON) 40.5% than district and provincial officials (38.9%). The results indicate that there is more reliance on structures closest to schools and head teachers mostly consult zonal head teachers or ZICS (44.2% up from 37.2% at baseline) compared to 13.2% from district officials (down from 17.2% at baseline). According to head teachers, support from district and provincial officials is mostly in form of courtesy call visits and exam center inspections while zone officials largely focus on mentoring teachers and improving quality of teaching and learning.

Similar to baseline, midline results show that the overall CPD culture is fairly strong and it just needs more support from the district and province so that teaching and learning quality keeps improving. In-service meetings are a regular occurrence in many schools and data point to the fact that head teachers and other teachers support each other at zone level. Over two years, RTS has been strengthening existing practices by working towards improving the quality of Teacher Group Meetings (TGMs) and Head teacher In-service Meetings (HIMs) so that meeting agendas increasingly focus on quality learning outcomes.

4.3.5 Guidance & Counseling and Community Support

Guidance and Counseling (G&C) is important for a child’s wellbeing. By definition, “it is the process by which students are given life skills on how to deal with emotional conflicts and personal problems, both in school and how to incorporate the same in their daily life”¹⁰. For RTS, G&C is important because it helps learners to effectively deal with factors in the environment that affect their concentration at school. By promoting effective G&C in schools, RTS set out to help learners focus on transformative learning and thereby improve learning achievements. During the midline survey, key questions were asked to head teachers on the types/services offered in schools and some summary results are presented in the following sub-sections.

At midline, results show that most (94.2% up from 84.5% at baseline) of all schools in RTS provinces have a teacher specifically assigned to handle G&C activities in the school. Further, midline results show a reduction in the proportion of G&C teachers with other teaching responsibilities from 97.5% at baseline to 93.7% at midline. Equally, the proportion of trained G&C teachers increased from 33.3% at baseline to 44.7% at midline, leading to a coordinated approach where Agents of Change receive mentorship from G&C teachers before they engage their peers. Even if a school has no trained G&C teacher, G&C services were still provided. Parents/guardians get to know that G&C services exist in a school mostly through PTA meetings (74.2 % up from 26.6% at baseline).

This demonstrates more engagement with the community as such forums are also used to discuss other teaching and learning activities which ultimately help parents to track learner achievements thereby enhancing teacher accountability. With regard to special service provision, learners with behavioral problems and those at risk of dropping out of school receive more attention i.e. 81.1% (16.9% at baseline) and 60.5% (12.5% at baseline) respectively. Table 15 gives more details.

Table 15: Types of G&C services available at school visa-a-vis those uniquely offered to girls

Type of service	BL%	ML%	Program or service offered to girls	BL%	ML%
Career counseling	16.2	35.8	Career counseling	2.1	21.6
Personal counseling	25.4	67.4	Personal counseling	30.1	57.4
Life skills education	18.8	63.7	Life skills education	18.9	56.3
HIV/AIDS prevention	22.6	60.5	HIV/AIDS prevention	22.9	48.9
Tutoring/ remediation	1.6	12.6	Reproductive health	NA	57.9
Afterschool recreation/ clubs	5.2	27.9	Afterschool recreation/ clubs	5.5	27.4
Feeding program	2.3	7.9	Feeding program	1.7	3.2
Scholarship/ financial assistance	4.3	12.6	Scholarship/ financial assistance	3.2	8.4
Mentoring	3.0	11.1	Mentoring	3.4	8.9

From the table above, results indicate that there have been substantial improvements in the services provided to all learners and those specific to the need of girls. In relation to the Re-Entry Policy, almost all head teachers (99.5% up from 98.9% at baseline) are aware about it and they clearly explained that girls who get pregnant should be allowed back in school and be given necessary support after they deliver. Community participation is regarded as crucial in all RTS interventions. Scholars agree that the role of the community in improving learner performance and ensuring accountability cannot be overemphasized.

¹⁰ <http://www.writing.wikinut.com/importance-of-guidance-and-counselling-in-schools/2j9-q09s/>

Postlethwaitie and Rose, (1992) pointed out that, in many countries, the more the school head teacher and other teachers have contact with parents, the more effective the school was in promoting the reading achievement of pupils. This shows that parent-teacher interactions play an essential role in promoting better learner performance.

All schools (100%) confirmed presence of a Parent-Teacher Association (PTA) at their schools compared to 96.9% at baseline. Further, survey results show that in schools with PTAs, meetings between school authorities and PTA mostly happen every term and on average 88 members of the community attend every time a meeting is called. Sometimes the number of community members that attend a meeting is as large as 500 people in one sitting. The major focus for PTA meetings is infrastructure/maintenance issues (77.9% up from 36.3%). However, discussions concerning actual teaching and learning quality has substantially improved from 20.4% at baseline to 57.9% at midline. This represents a growing appreciation for the value that parents place on learner performance.

The level of collaboration between head teachers and PTAs were evident in the joint activities that they undertook such as development of the school improvement plan, interpretation of results using Talking Wall Posters and the enforcement of homework policy. Given the demand in schools and the need for continued support, head teachers still want more support as they think the current PTA or community support is not sufficient to achieve the objectives of school improvement plans. In fact, results show less head teachers (38.9%) at midline compared to 45% at baseline who feel the current support is sufficient in light of the fact that PTAs have insufficient resources and members usually do not show full commitment to school projects.

4.4 General School Information

This section of the report presents general school information in the six provinces. This information is important for contextual understanding of factors that affect teaching and learning processes in the schools. According to results, on average, most of RTS schools are located about 66 kilometers from the DEBS office, which classifies them as either rural or remote thereby making them difficult to monitor at certain times of the year particularly in the rainy season. Compared to baseline, midline results show some positive changes with regard to infrastructure and access to amenities such as access to electricity 29.1% (10.9% at baseline), access to running water at 14.1% (8.9% at baseline). Access to school libraries improved from 7.6% to 19.1% while access to playgrounds improved from 59.9% at baseline to 85.9%. For toilets, the survey found that on average, there are 3 (2 at baseline) functional toilets for either girls or boys depending on a school population. I RTS schools, average enrolment per school is 400 learners. This results into an average toilet ratio of 1:140 for both girls and boys. This is below the recommended government policy standard toilet-ratio¹¹ of 1:40 for boys and 1:25 for girls.

The notable changes may be due to collective efforts among government, civil society and other players. At baseline, 55.5% of all schools received some sort of support from NGOs but at midline, compared to 62.3% at baseline. The support is mostly in the form of scholarships, textbook supplies, water and sanitation activities and HIV/AIDS information dissemination. Support to libraries significantly improved from 2.9% at baseline to 7.0% at midline which indicates a general momentum among players in the education sector towards improving literacy.

According to the SACMEQ Policy Research Report No.5, there are no Ministry guidelines for school size. Instead, school size and enrolment are determined by demand in a given locality. The average primary school class size for 2013/14 year was 40 learners in grade one, 38 in grade two, 36 in grade three, 33 in grade four, 31 in grade five, 27 in grade six and 25 in grade seven. The data confirms the general view that

¹¹ Reported as advised by USAID funded SPLASH Project

there are large classes at grade one and then numbers gradually fall due to dropouts as fewer learners progress to higher grades.

The overall dropout rate is around 5%, with the biggest drop observed in grade 5 at 6.6%. The dropout rates for both sexes were not significantly different. However, in the lower grades, more boys dropout compared to grade 7 where slightly more girls drop out. In terms of performance, boys do slightly better at grade seven examinations than girls (84% compared to 80% pass rate).

General attendance rate is about 60% for both learners and teachers though attendance of female teachers is much lower (55.4% compared to their male counterparts at 64.6%). Head teachers noted that female teachers are more affected by the rural/remote environment and therefore stay away from school most of the times. Regarding teacher pregnancies, the proportions are low at below 0.2%. The number of girls returning to school after falling pregnancy is approximately 0.01%. The number of OVC dropped from an average of 27 at baseline to 13 at midline.

No major differences were noted with regard to school-based support (such as text books and uniforms) provided to boys and girls. The holistic analysis of school statistics demonstrate that the school environment has improved as more support is being provided to the learners by different players. This is acting as a stimulus for improved learner performance in many schools.

4.5 MESVTEE Officials Support to Schools

There is no question that district and provincial officials provide an environment which impacts on learner performance. As instructional leaders, officials are expected to provide coaching and support and are responsible for establishing and communicating clear goals and expectations for student learning. This section assesses how government officials support schools, particularly with respect to promotion of reading.

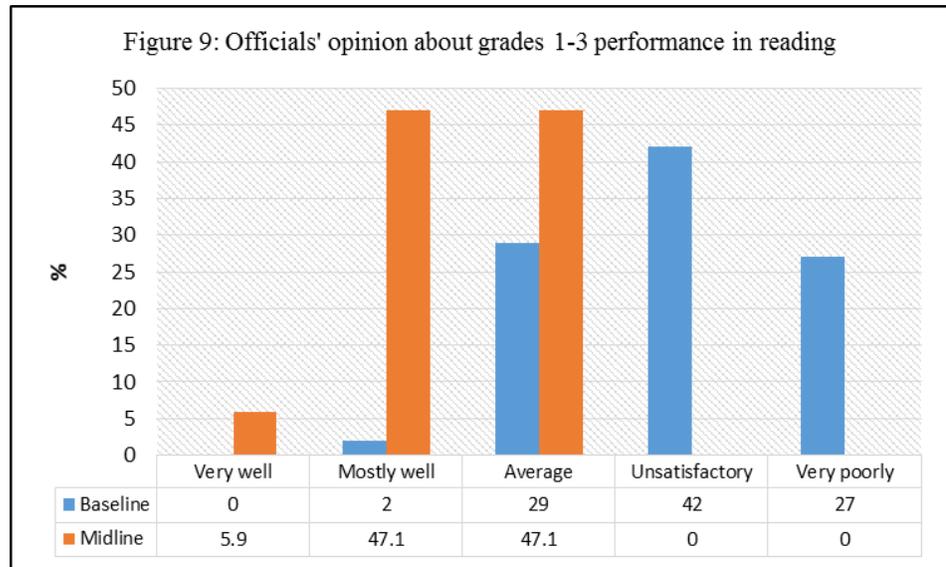
4.5.1 Demographics

There were a total of 34 officials interviewed and they comprised standards officers, District Education Board Secretary (DEBS), District Planning Officer (DPO) as well as District and Provincial Resources Center Coordinators (DRCCs/PRCCs). The midline results show that there are still more male than female officers holding key district and provincial positions i.e. 61.8% male (73% at baseline) and 38.2% female (27% at baseline). This result shows a slight improvement from baseline, but it does not eliminate gender imbalances in leadership positions. In connection with number of years of service, interviewed officials have an average of 4.8 years in their current positions with the longest having served 17 years. Only 52.9% (49% at baseline) of the staff had been trained specifically for their role in the current position. The majority 73.5% (56.1% at baseline) have previous experience in teaching young children to read with 82.4% (66% at baseline) having received training on how to teach reading effectively.

4.5.2 Focus on Reading

Many MESVTEE officials (91.2%) demonstrated understanding of how to teach reading in schools. They are aware that schools set aside time for teaching reading and they further know that schools use official local language as a medium of instruction for grades 1 and 2. However some officials (35%) think that teachers use English to teach grades 3 and 4 respectively. For the teachers who fail to use local languages, officials think that this may be due to their inability to speak the language and also the absence of local language materials/books. In addition, most officials (85.3%) know that the common method of teaching reading in schools is sounding letters and decode words as opposed to memorizing (2.9%) and reciting (5.9%). According to officials, the major challenge faced by schools in the teaching of reading is shortage of materials (73.5%) and poor teaching practices (44.1%). This perception may suggest that many officials still look at shortage of materials as a significant factor in improving effectiveness. This view works against

a culture of resourcefulness among teachers and school administrators. In addition, results indicate that support from officials is mostly provided on a quarterly/termly basis; be it training, provision of materials, monitoring or meeting with parents to discuss community and family problems. In their opinion, officials think that 5.9% of grades 1-3 are performing very well in reading. See Figure 9 for details. Overall, interviews with officials revealed that they have sufficient foundation knowledge in how to effectively teach reading in schools thereby helping to provide appropriate support schools.



4.5.3 School Information and Planning

All officials consider school information as critical for planning, especially as it relates to learner performance in reading. Results indicate that officials ensure that schools develop school strategic plans and learner performance plans with the help of the community members. Other written plans in the school include teachers' plans, infrastructure improvement plan and School In-service Program for Term (SPRINT). Just like at baseline, most of the information is mostly collected by zone officials and passed on to district offices for aggregation and analysis. The sources of information are mostly grade 7 results (55.9%), term test results (41.2%), Grade 2 Literacy Progress Report (64.7%) and information from the Red Level Tracker¹² (61.8%). Results indicate that more officials (85.3% compared to 29% at baseline) personally use information they gather from schools to monitor implementation of plans.

With regards to assessing head teachers' attitude towards planning, 79.4% (45% at baseline) of all officials think that head teachers are willing to plan because they feel that their school can change for the better. About a quarter (14.7%) of officials (25% at baseline) were for the view that head teachers see no point in planning because they do not have the resources to do anything new. Further analysis of the midline survey data shows that officials are increasingly working together with school authorities and the community in developing school improvement plans. The team approach to collective planning and implementation of activities in schools is slowly but steadily paying off as learners have shown improvement in performance.

4.5.4 Monitoring and Support

Accessibility (55.9%) and amount of complaints received from a school (58.8%) are the two most common factors which prompt the school an official should visit. This was supported by a large proportion of officials (85.3%) who agreed that schools do get an equal share of such visits. The survey results indicate that officials improved the amount of time they spend visiting schools from about a quarter to over half (58.8%). The monitoring visits are primarily used to monitor teachers' assessment records (62.5%), sample children's written work (59.4%) and observe lessons (56.2%). At baseline, the top three monitoring focus areas were advising teachers and head teachers and lesson observations. Discussion of school matters with PTA had the least attention from officials with only about 21.9% of them spending time on PTA issues. For the most part, feedback support is given in form of advice to individual teachers and head teachers, and written reports which are often shared with superiors (61.8%) and colleagues (41.2%).

Support from zone officials towards school monitoring was well noted by 94.1% (up from 69% at baseline) of district and provincial officials. They rated them as highly effective 17.6% (0% at baseline), quite effective 64.7% (53% at baseline), partly effective 11.8% (41% at baseline) and not effective 0% (6% at baseline). Survey results show that zone officials frequently visit schools to strengthen SPRINT activities. This kind of support has strengthened the link between schools and zone resource centers which now act as a key entry point to resolving teaching and learning problems. Overall, there is evidence that officials are actively involved in efforts to improve learner performance in their respective places and they actually believe that their support makes a big difference (52.9% up from 27% at baseline). This reflects a growing positive attitude that can bring about accountability in the teaching and learning processes, thereby improving learner performance in schools.

¹² The Red Level Tracker is an assessment system of categorizing learner performance. Least performers are in Red, learners at minimum are in Yellow, those at desirable are in Green and outstanding learners are in Blue. Since the focus is on helping those in Red, hence the name Red Level Tracker

5 CONCLUSION AND RECOMMENDATIONS

5.1 Conclusion

The Midline Survey results demonstrate an improved picture from the one captured at baseline. A growing number of learners have mastered the basics in letter naming and letter sounds but still fall short of required skills to read and comprehend grade level text. This survey report demonstrates that progress has been recorded but more still needs to be done. With regards to school effectiveness, more teachers demonstrated desirable pedagogical practices such as lesson planning, development of teaching aids, using interactive teaching techniques, conducting regular assessments and engaging with parents and community. In addition, head teachers provided close supervision of teachers particularly with respect to classroom observations. Zone officials were more active as they organized CPD meetings and visited individual schools more regularly to provide onsite coaching and mentorship. District and provincial officials provided regular support to schools leading to improving learner performance. Overall, the evidence shows improvements in many areas of school management. However, the noted changes are not substantial enough to have a big impact on the entire system.

For the learners, it was noted that the most critical foundation reading skills have been established. As results show, letter name identification, letter sounds and basic reading abilities have improved. This change is indicative of improving pedagogical practices. In other words, the current methods of teaching reading have been shown to produce positive results and have potential to produce better results. The survey also concludes the skill least improved is reading comprehension as it had the lowest scores. Clearly, this is an area that requires more attention in the next phase of the project and beyond particularly that it seems to be tied to availability of reading materials.

Survey results further show that with the right kind of consistent support, teachers are capable of working with bare minimum resources and still improve learner performance. Many RTS supported schools are like any other government primary schools where resources are scarce. However, many teachers in RTS supported schools demonstrated that creativity is key to solving the problem of insufficient teaching and reading materials in schools. Schools leaders and administrators should therefore focus on developing the right attitude in teachers so that they not only apply the right pedagogical principles but also have the stamina to work efficiently and effectively in resource constrained environment.

The results underline the general understanding that good leadership is critical in service delivery. The notable changes in learner performance may largely be a result of improved instructional leadership exhibited by many head teachers in RTS schools. For example, there were more head teachers conducting classroom observations at midline than at baseline. In fact, performance in this aspect improved by almost 60% from 29.6% to 88.9%. Other aspects such as using assessment data, promoting TGMs, developing performance plans and engaging communities all hinge on the leadership qualities of the head teacher. This survey concludes that training head teachers in their current leadership roles is paramount because it helps them to merge both the pedagogical and administrative functions of school management for improved teaching and learning.

Related to the above, results show that district and provincial officials increased their supervisory visits which contributed to improved performance in sample schools. Results also show that continuous engagement with zone officials helped to create a link between schools the MESVTEE staff at district and provincial offices. The survey concludes that effective coordination between zones officials and provincial staff will guarantee appropriate support to schools as this a structure that is closest to the school. The linkage with zone official helped ministry officials to stay current with information from schools as evidenced by more officials who personally use data from schools for planning and decision making.

5.2 Recommendations

1. ***Increased investment in the production and distribution of reading materials:*** all stakeholders and the private sector should work towards production and distribution of appropriate reading materials in schools. This is important because many learners have grasped basic letter sounds and decoding skills which equips them for actual reading. The more materials they read, the better for their sequential reading skills development.
2. ***Emphasize more on teaching reading of sentences:*** This is similar to the above recommendation. Since learners have acquired basic skills, it is imperative that teachers focus on teaching how to read full words or sentences so that they incrementally develop their reading skills to maturity level. This will enhance oral reading fluency and improve comprehension levels.
3. ***Enforce homework policy at school level:*** Stricter adherence to Homework Policy entails more practice for learners leading to mastery of reading skills and improved performance. More systematic enforcement of home coupled with sensitizations to parents and community about their role will increase stakeholder participation in learner processes.
4. ***Strengthen school-based coaching:*** As midline survey results showed, supporting teachers and head teachers particularly through zonal structures is effective. It promotes stronger CPD activities particularly through TGMs. Therefore, district and provincial staff should play a supportive role in ensuring that CPD at school is strengthened.
5. ***Increase use of assessment data to improve teaching and learning:*** Teachers should be supported to improve both assessment of learning and assessment for learning. More importantly, teachers and school leadership be encouraged to use assessment data for strategic decision making. Assessment data should be one of the guiding yardsticks during TGM discussions for purposes of accountability and more focused learner support.
6. ***Encourage more parental involvement in learners' academic processes:*** Besides participation in school infrastructure projects, more parental involvement in academic processes will increase practice time for learners because the home will become an extension of the school setting. Subsequently, more learners will improve their skill mastery leading to improved performance in fluency and comprehension.

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